LISBON SCHOOL OF ECONOMICS & MANAGEMENT
UNIVERSIDADE DE LISBOA

MASTER OF SCIENCE IN FINANCE

MASTERS FINAL WORK PROJECT

EQUITY RESEARCH: RYANAIR HOLDING PLC

FILIPA ISABEL VALENTE FERRO

SUPERVISOR:
PROF. DOUTOR PEDRO RINO VIEIRA

OCTOBER 2018

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Abstract

According to the final work project of the Master of Finance, this Equity Research aims at the detailed evaluation of the company Ryanair Holdings Plc, according to the recommendations of the CFA Institute. Initially I decided to study an aviation industry company since it is an industry that appeals to me and I would like to know how it is organized. That said, I have chosen Ryanair because despite being a European airline company, it is pioneering to operate at ultra-low fares offering more than 2000 short-haul flights a day, serving more than 200 airports across Europe. This report contemplates only the information made available until October 26, 2018. Any information or events after this date have not been considered. The target price was calculated using the absolute valuation method, the discounted cash flow method (DCF), and was supplemented by the relative valuation method and the comparable multiples method. It is expected that at the end of 2019 the target price will be €10.18, representing a potential downside of 17.07% against the current price of € 12.27. Thus, based on the analysis conducted on Ryanair Holding Plc, our final recommendation is to SELL.

JEL classification: G10; G32; G34.

Keywords: Equity Research; Valuation; Mergers & Acquisitions; Ryanair Holding Plc, Low-cost carrier, Airline Industry

Resumo

De acordo com o projeto de trabalho final do Mestrado em Finanças, o presente Equity Research visa a avaliação detalhada da empresa Ryanair Holdings Plc, segundo as recomendações do CFA Institute. Inicialmente decidi estudar uma empresa da indústria da aviação uma vez que é uma indústria que me suscita interesse e gostava de conhecer a forma como se organiza. Posto isto, elegi a Ryanair porque apesar de ser uma empresa europeia da indústria da aviação, é pioneira em operar com tarifas ultra-baixas oferecendo mais de 2000 voos de curta distância por dia, servindo mais de 200 aeroportos através da Europa. Este relatório comtempla apenas a informação disponibilizada até 26 de Outubro de 2018, qualquer informação ou evento posterior a esta data não foram considerados. O preço alvo foi calculado através do método de avaliação absoluto, o método dos Fluxos de Caixa Atualizados (DCF), sendo complementado pelo método de avaliação relativa, o método dos múltiplos comparáveis. É expectável que no final de 2019 o preço-alvo seja de €10.18, representando uma potencial desvalorização de 17.07% face ao preço corrente de €12.27. Os principais riscos inerentes ao preço-alvo são o aumento do preço dos combustíveis ou o aumento do prêmio de risco de mercado. Deste modo, a nossa recomendação final para a Ryanair Holding Plc é VENDER.

Classificação JEL: G10; G32; G34.

Palavras-Chave: Equity Research; Avaliação de Empresas; Aquisições e Fusões, Ryanair Holding Plc; Baixas tarifas; Indústria da Aviação.

② Acknowledgements

This project represents the end of a very important academic stage for me, the fruit of much effort, dedication and persistence. I followed the beginning of my professional life, my first job.

However, it would not be possible without all the words of affection and strength to not give up on the part of my family, friends, supervisor and the work team.

To my colleagues at Alter Solutions, who always supported me who constantly asked me at what point of situation was the thesis and always end up giving me words of support and strength.

To my friends, for all the friendship, patience and good moments throughout these months.

To my supervisor Pedro Rino Vieira, who despite my notorious delay always supported me and believed me.

And last but not least, my parents, my cousin Ruben, my grandparents and my aunt Dolores, for the unconditional support, encouragement and values that have been passed on to me throughout my life, enabling me to achieve my goals not only personal but also professional.

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Ryanair Holding Plc

SELL

High risk

26TH October 2018

RYA: Low-Cost, Low-fares

(YE2019 Price Target of € 10.18 (-17.07%); recommendation is to Sell)

1. Research Snapshot

Based on the analysis conducted on Ryanair Holding Plc, **SELL** recommendation is initiated with a price target of €10.18 at the end of 2019, representing an upside potential of 10.28% from its closing price of €12.27 although with high risk, using the discounted cash flow method. Relative valuation through multiples support our above view. This indicating a downside potential of -16.79% from its latest closing price. This is due to the following factors.

It works continuously to improve its place in this segment of the market and to compete not only with LCC airlines but also with Full Service. Some measures are taken to acquire the new fleet of Boeings 737-MAX-200 that are more efficient and environmentally friendly, to acquire 75% of LaudaMotion and initiating additional routes in the EU.

Scheduled Revenues represent 72% of total revenues and ancillary revenues represent 28% of total revenues.

Ryanair presents low operating costs by reducing and controlling the 4 largest expenses involved in this business. Some of these measures are as follows: aircraft equipment costs - operates with a single type of aircraft; personal costs - pay compensation based on productivity-related wage incentives; customer service costs - obtain competitive rates for services such as ticketing, handling of passengers and aircraft by negotiating multi-annual fixed price contracts; and access and handling costs at airports - prioritizes airports that offer competitive pricing.

Figure 1: Share Price Movement

Source: Thomson Reuters

Table 1: Analyst's Risk Assessment

Low	Medium	High

Our risk assesment estimates a high risk for RYA.

Table 2: Market Profile

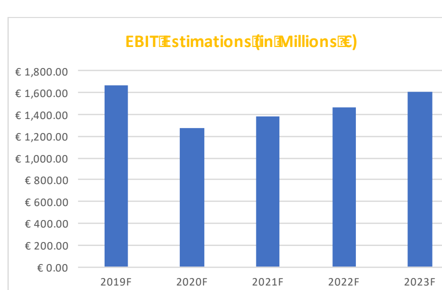
Key Information	
Previous close price	€ 12.20
Open price	€ 12.23
Closing Price	€ 12.27
52-week High	€ 18.30
52-week Low	€ 11.04
Volume	2,109,785
Avg. Volume	2,104,103
Shares Outstanding	1,133.4
Market Cap.	€ 13,600.74
Reuters	RYA.I
Bloomberg	RYA:ID

Source: Thomson Reuters

Table 3: Valuation Output

Valuation	2019F Target
DCF	€ 10.18
Multiples (Average)	€ 12.56
EV/EBITDA	€ 10.12
P/E	€ 14.81
P/CF	€ 12.67
Current Price (26/10/2018)	€ 12.27

Figure 2: EBIT Estimations



Source: Author

2. Business Description

RYANAIR HOLDINGS PLC (RYA) founded in 1985, is an Irish low-cost airline based in Swords (Dublin, Ireland). It is a passenger transport airline company that pursues a strategy focused on low ticket prices and where extra services are paid by the passengers. These services, ancillary services, are aggregated into 'non-flight', Internet-related and ''in-flight'' related to the sale of beverages, food and merchandise. Complementarily, the company provides a baggage service at Dublin Airport and though its website accommodation services and travel insurance.

Considered the No.1 airline in Europe in 2018, with a fleet of 400 aircrafts, it carried 130,3m passengers on more than 2,000 daily flights connecting 221 destinations in 37 countries.

Ryanair has been the industry leader for 33 years on safety and on-time performance, due also to highly skilled professionals (table 4).

Ryanair was created in 1985 by the Ryan family with a registered capital of only £1 being constituted by a team of 25 elements. The first route was launched in July with daily flights in a 15-seat Bandeirante aircraft, operating daily from Waterford (southeast Ireland) to London Gatwick. This year, the company transported about 5,000 passengers. The requirements of the first cabin crewmembers should have been less than 5ft. 2ins. tall in order to be able to operate in the tiny cabin of the aircraft.

Through AGB's year 4 program, RYA established a partnership with Air Europa and in May 2017 began selling Air Europa long-haul flights from Madrid to the United States and Latin America (figure 3).

This year RYA launched Ryanair Sun, a charter airline that will start charter flights to/from Poland for the summer vacation period 2018 with an initial fleet of 5 aircraft. Thus, RYA intends to significantly increase its presence in Poland where it is already the official company No.1.

Through **AGB's year 5**, The 2018 ABG Plan includes measures to improve the environmental, services, digital and ancillary initiatives.

The Environmental plan includes measures to eliminate all non-recyclable plastic from operations over the next five years, such as on board: (i) switch to wooden cutlery, (ii) bio-degradable coffee cups, and (iii) the removal of plastic from RYA range of in-flight products company will also introduce a scheme to allow customers to offset the carbon cost of their flight thought a voluntary climate charity donation online.

RYA prepares to unveil "Try Somewhere New" which consists of a unique travel hub on its website, which houses exclusive travel guides and destination videos in 7 languages. RYA continues to innovate, providing its customers the most on-time flights and a fantastic on-board experience, as company grow its fleet, traffic and routes.

In the fiscal year 2018, the total operating revenues reached to €7.15bn.

Given the geographical distribution of revenues, the UK (23%) is the main source of revenue followed by the mother country Ireland (7%) and finally the 31 Europeans where it operates, which account for 70% of revenues without individual relevance (figure 4).

The only business segment of RYA is the activities related to the low-fare airlines that generate all the company's operating profit.

Profits mainly accrue in Ireland as the company's main revenue assets, its aircraft, are recorded there.

There is no adequate basis for allocating such assets and liabilities related to geographic segments as Ryanair's fleet is employed through its route network in Europe.

Ryanair's revenues are grouped into two segments: scheduled revenues and ancillary revenues (figure 5).

Table 4: Ryanair Brief Profile

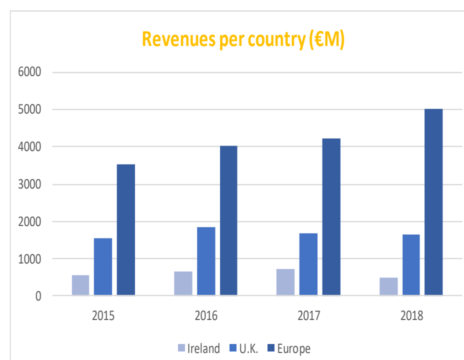
Ryanair brief profile	
Traded as	Irish Stock Exchange; London Stock Exchange; NADASQ
Headquarters	Swords (Dublin, Ireland)
Key people	Chairman: David Bonderman CEO: Michael O'Leary
Services	Low-cost airline by scheduled passengers carried
Skilled Professionals	14,500
Daily flights	2,000
Countries	37
Auditor	KPMG

Source: Company Data

Figure 3: Routes

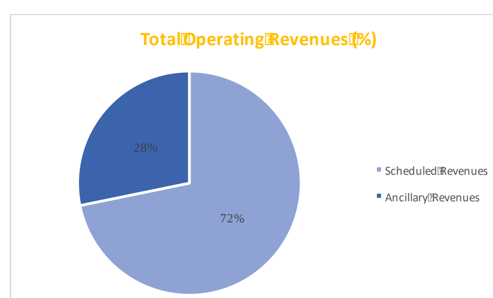
Source: Company Data

Figure 4: Total Operating Revenues per Country (%)



Source: Bloomberg

Figure 5: Revenues (%)



Source: Bloomberg

Scheduled revenues represent 72% of total revenues with €5,134.0m, which indicates an increase of 5% over the previous fiscal year, mainly reflecting the 9% increase in the number of booked passengers to 130,3m, in part mainly offset by the 3% decrease in average fare from to €39.40. In fiscal year 2018, booked passenger load factor reached 95%.

Ancillary revenues represent 28% of total revenues with €2,017m, which indicates an increase of 13% over the previous fiscal year.

These revenues are divided in three sub-segments: non-flight scheduled operations, in-flight sales and Internet-related services.

Non-flight revenues include revenues from excess baggage charges, administration/credit card fees, priority boarding, reserved seating, accommodation, travel insurance and car rental. In-flight revenues include food and services and Internet-related include commissions received from products sold on Ryanair.com or linked websites.

Operating costs with the greatest impact are Fuel and Oil (35%), Airport and handling charges (17%) and Staff costs (13%). With less impact we have Route charges, Depreciation, Marketing, distribution and others, Maintenance, materials and repair and Aircraft rentals (figure 6).

Compared to fiscal year 2017, operating expenses increased 7% in fiscal year 2018 due to increased costs associated with the company's growth (figure 7).

Scheduled passenger revenues increased 5% reflecting a 13% decrease in average fare and booked passenger load factor increased by 1%.

Thus, we can consider as key revenues and profitability drivers: low-cost tickets (figure 8); increase in passenger load factor (figure 9); the high price related to ''non-ticket'' services (figure 10).

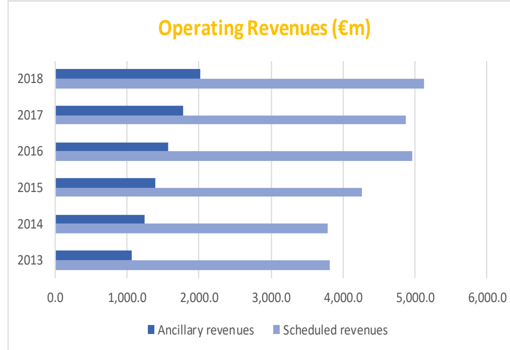
Long-Term Strategy

Ryanair's primary goal is to assert itself as the largest scheduled passenger airline in Europe. To this end, Ryanair offers low fares that lead to increased passenger traffic combined with a focus on cost containment and operational efficiencies. Thus, the main elements of the long-term strategy are: Costumer services, Frequent Point-to-Point Flights on Short-Haul Routes, Low Operating Costs, Taking Advantage of the Internet, Commitment to Safety and Quality Maintenance, Enhancement of Operating Results through Ancillary Services, Focused Criteria for Growth, Responding to Market Challenges (figure 7). Most important strategies are:

Low fares are used to continuously stimulate the demand for leisure-conscious and business travelers, not only by selling seats at a single time, eliminating the minimum requirements for permanence of all trips, but also fares on flights with a lot of demand and for bookings with little anticipation. Periodically launches promotional campaigns.

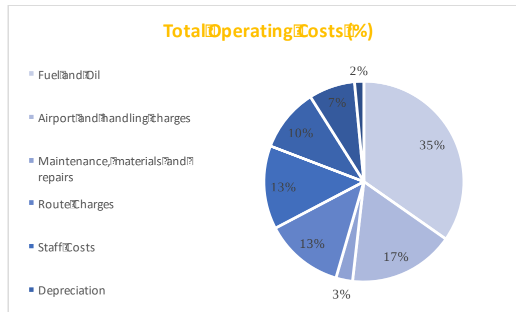
Low Operating Costs is obtained by reducing or controlling four of the major expenses involved in this business: (i) aircraft equipment costs (Ryanair operates a single aircraft type, currently the generation of the Boeing 737-800s and will commence operating the update Boeing-MAX-200 aircraft in Spring 2019. When buying aircraft to a single manufacturer, it limits the costs related to personnel training, maintenance and purchase and storage of spare parts while also affording the

Figure 6: Total Operating Revenues



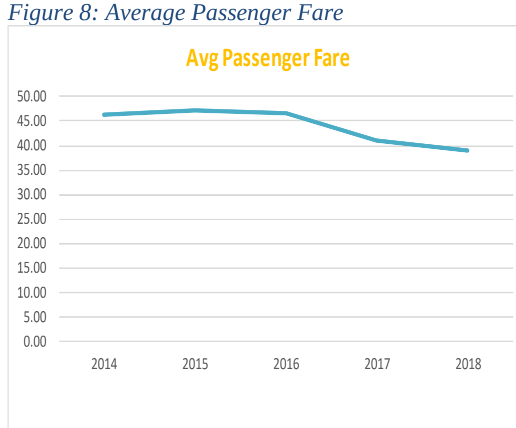
Source: Bloomberg

Figure 7: Operating Costs (%)



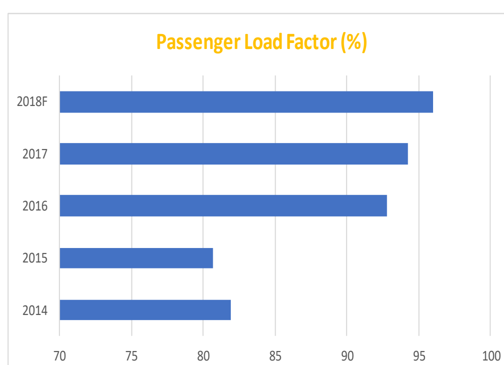
Source: Company Data

Figure 8: Average Passenger Fare



Source: Company Data

Figure 9: Passenger Load Factor (%)



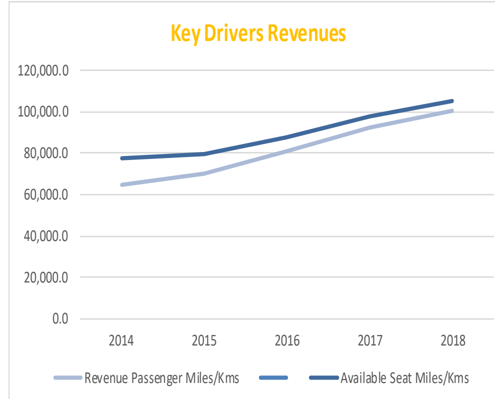
Source: Bloomberg

Company greater flexibility in the scheduling of crews and equipment); (ii) personnel costs (The variable component of the salaries has great potential for growth as RYA pays its collaborators, namely the payment of on-board sales bonuses by flight attendants and also the payment of the number of hours / sectors flown to pilots and flight attendants, within the limits set by industry.); (iii) customer service costs (The administration is attempting to negotiate fixed-price and multi-year contracts and, thanks to the development of its own reservation facilities on the Internet, can eliminate commissions from travel agents. Direct sales on your site/mobile application are the main recipe for scheduled riders); and (iv) airport access and handling costs (It focuses on competitively priced airports and takes measures to reduce the fees to be paid such as exchanging jetways for outdoor ladders and introducing a checked baggage fee).

To achieve **focused criteria for growth**, RYA considers the following measures: (i) using aggressive fare promotions to stimulate demand; (ii) initiating additional routes in the EU; (iii) initiating additional routes in countries party to a European Common Aviation Agreement with the EU that are currently served by higher-cost, higher-fare carriers; (iv) increasing the frequency of service on its existing routes; (v) starting new domestic routes within individual EU countries; (vi) considering acquisition opportunities that may become available in the future; (vii) connecting airports within its existing route network ("triangulation"); (viii) establishing new bases; and (ix) initiating new routes not currently served by any carrier.

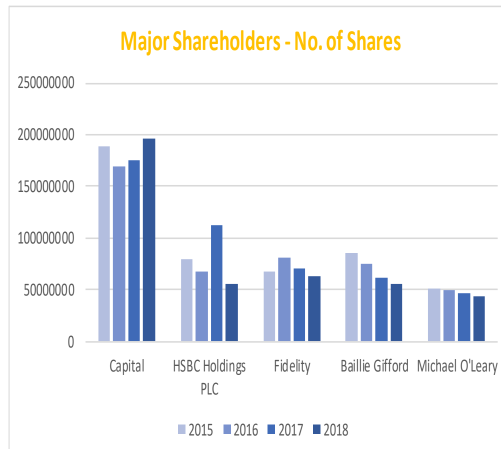
For **Responding to Market Challenges**, for instance, combining low fares with fluctuating fuel costs and reducing economic growth in some of the economies, RYA faces these challenges: (i) grounding approximately 60 aircraft in 2018 FY, during the winter season; (ii) disposing of aircraft (lease hand backs totaled 2 in fiscal year 2018); (iii) controlling labor and other costs, including through wage freezes for non-flight crew personnel in fiscal year 2011 and 2013FY, selective redundancies and the introduction of Internet check-in in 2010FY; and (iv) renegotiating contracts with existing suppliers, airports and handling companies. However, the company has no assurance that it will be successful if it achieves all the measures mentioned above or if it chooses the same measures or that the mentioned items will provide profits in any period to RYA.

Figure 10: Key Drivers Revenues



Source: Bloomberg

Figure 11: Shareholders Structure



Source: Company Data

Shareholders Structure

The ownership structure is divided in Investment Advisor, Bank, Individual and Others.

The majority of shareholders holding more than 3% of common shares as of June 30, 2018 are shown in figure 10, the two largest holders being Capital and HSBC Holdings PLC. The directors and executive officers of Ryanair Holdings as a group owned 53m Ordinary Shares, representing 4.6% of Ryanair Holdings' outstanding Ordinary Shares as of 30 June 2018 (figure 11). The Board of Directors of Ryanair Holdings has certain powers to take measures to ensure that the number of Shares held by non-EU does not jeopardize the Company's right to continue to own or benefit from any license, permit, consent or privilege that it holds or enjoy and allow it to market as an air carrier.

Ryanair recognizes the importance of communications with shareholders.

A shareholder holding at least 5% of the issued share capital has the right to request an extraordinary general meeting and at least 3% of the issued share capital has the right to place an item on the agenda of an AGM (Agenda General Meeting) or to present a draft resolution for an agenda item in any general meeting.

3. Management and Corporate Governance

The Irish Stock Exchange it's where Ryanair holds its primary listing, while in NASDAQ its American Depositary Shares are listed and its standard listing is on the London Stock Exchange.

Board Roles

Leadership, strategic direction and oversight of the Group's management are the leading duties of Ryanair's board. The strategy development is the main focus of the Board, which includes the approval of the annual budget, large capital spending, and vital strategic decisions. Additionally, the Board is also responsible for the treasury policy, audit, internal control, risk management, remuneration of the Non-Executive Directors and Corporate Governance and executive management. The group management was delegated by the Board to the CEO and the executive management, and there is a distinct separation between the chairman and the CEO, written and approved by the Board.

Board Members

The Board of Directors includes one executive and twelve non-executive directors. Non-Executive Directors are, usually, the majority of Ryanair's Board of Directors. The existent committees in Ryanair are: Executive, Remuneration, Audit, Safety and Nomination Committee (Appendix 13 – table 13-1). The Board considers that its current characteristics regarding size, composition and diversity are appropriate.

Chairman

Since December 1996 that David Bonderman has the position of Chairman of the Board of Directors and his key functions are to lead the Council to guarantee that it has a shared purpose, that it is productive as a group and as an individual, and to assure that the Director endorses and encourages the high standards of integrity and corporate governance. The Chairman certifies that the strategies of the Board takes into consideration the fundamental strategic problems facing the Group; that the Board reviews and approves the management agenda for the Group; and that the Directors obtain precise, timely, clear and relevant information.

The Chairman acts as the bridge between the Board and the Company, being responsible for developing and preserving an effective working relationship with the CEO, to make sure that there is a good communication with shareholders and to certify Board members have a clear understanding of shareholders' views and opinions.

CEO

Ryanair's CEO is Michael O'Leary, who has Irish nationality. In 1984, he started his career at KPMG, as a tax consultant. After that, he worked at Tony Ryan as financial advisor, in 1986. In 1988, he started in Ryanair, with the position of Deputy Chief Executive, becoming Chief Operating Officer in 1991. In 1994, O'Leary has become the Chief Executive Officer, position that he still holds 24 years later.

Senior Management

The Board of Executive Officers regularly raises the Board of Directors, including new members, regarding operational, financial and strategic matters. Moreover, the Board has direct access to senior management, as regards any issues that have happened related to the operation of Ryanair. At the Company's headquarters can be found the appointment letters that state the terms and conditions for the nomination of Non-Executive Directors.

Remunerations

The Board of Directors created Remco, that has the authority to stablish the remuneration of senior executives and to manage the Company's stock options plans. James Osborne, Julie O'Neill and Howard Millar constitute the members Of Remco.

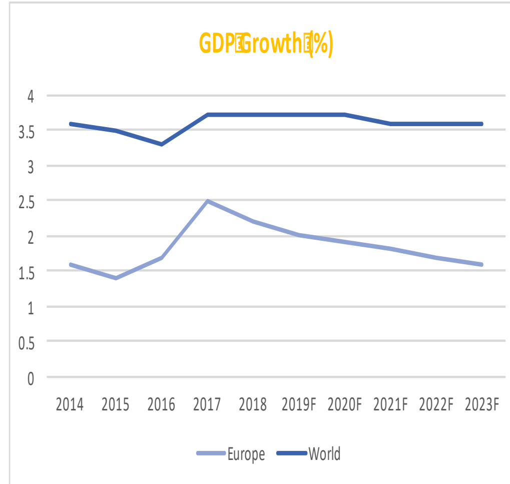
Ryanair's CEO renumeration and bonus are higher than other airlines in Europe (Appendix 13 – table 13-3).

Your bonus last year was determined by Remco at approximately 90% of last year's base salary, comprising 50% for exceeding the PAT budget for the previous year and 40% for your personal performance against a list of operations, goals financial and customer service.

Environmental, Social and Governance Policies

Ryanair through its sustainable practices was classed as Europe's greenest and cleanest airline. These practices are associated with investment in new aircraft and engine technologies which carry more passengers while burning less fuel, with lower noise and NOX emissions and increased focus on digital technology through the release of the new website and app, has improved Ryanair's interaction with customers, providing them with the services and information required to make their travel more productive and comfortable. In offices and hangar, the company is maximizing the use of solar power, LED lighting and recycling programs and continue to invest heavily in electronic communications and digitalization as a way of reducing the paper involved in ticket processing and travel. Ryanair follows six key components: (i) Safety and Quality; (ii) Energy Efficiency; (iii) Environment and Carbon Emissions; (iv) People Management and Social; (v) Ethics and Transparency and (vi) Corporate Governance.

Figure 12: GDP Growth (%)



Source: OECD

4. Industry Overview and Competitive Positioning

Economic Outlook

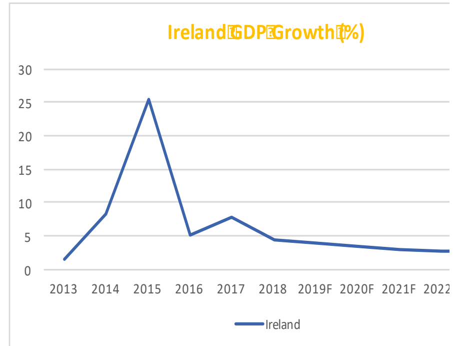
It is expected 1% of **worldwide GDP** to be spent on air transportation in 2018. It is estimated that in 2018 and 2019 global growth will increase by 3.9% (figure 12). However, this growth hasn´t been homogeneous and has been declining for the euro area, Japan and the UK, which therefore increases the risk outlook. For Argentina, Brazil and India, growth forecasts are low, while the outlook for some oil-exporting countries is predicting growth. As for the United States, near-term momentum has been fortified. For emerging markets and developing economies, growth prospects have also been mixed between rising oil prices, rising trade tensions and market pressures on the currencies of some of the more fragile economies. Resulting from the influence of rising oil prices, growth disparities between the United States, Europe and Japan, as well as between emerging and developing markets have increased. With regard to short-term activities during the second half of 2018, retail sales appear to have increased and the service sector remains globally strong. Industrial production appears to have declined, with a reduction in the level of new export orders.

European economic

In Europe, since activity slowed more than expected in the first quarter of 2018, growth forecasts for this year were revised to lower values for Germany and France, and also for Italy, with expected sovereign spreads and conditions tors that exceed domestic demand. Thus, in the euro area, economic growth is expected to slow gradually from 2.4% in 2017 to 2.2% in 2018 and to 1.9% in 2019.

The economic recovery it is expected to continue in 2018 however, at a slower pace since many economies are approaching their full capacity. The foundation of the recovery of the Euro Zone is essentially the consumers expenses driven by the improvements in the labor market. The growth must slow its pace to 2,1% in 2018 and 1,9% in 2019, as the gaps of production close and the latent demand is increasingly satisfied. The factors that might slow the economic growth in Europe are essentially the lack of structural reforms in the Euro Zone, including fiscal fragilities due to the crises and, in some countries, due to an excessive public or private debt. There is also a potential risk of appearing asset bubbles, risks related to the regression of extremely low interest rates and a contention in the global integration and trade. The four main developments that might risk the continuous European recovery: (i) structural reforms in the Euro Zone, (ii) asset bubbles, (iii) low interest rate environment and (iv) global integration and trade.

Figure 13: Ireland GDP Growth (%)



Source: OECD

Ireland Economic Outlook

The Irish economic activity is expected to remain robust, but to ease gradually.

GDP is expected to grow by 5.7% this year and 4.1% in 2019 (figure 13).

Domestic demand is expected to remain stale due to growth in employment and consumption. Inflation will continue to rise due to wage pressures caused by the labor market contraction, and also due to the effects of the dissipation of the depreciation of the pound sterling. As for the uncertainty surrounding the economic outlook, it remains high due to the UK-EU negotiations, as well as changes in the international tax and trade environment.

Brexit

RYA can see its businesses affected by the risk and uncertainty resulting from the referendum " Brexit ".

This referendum, signed on 23 June 2016 in the U.K, consists of leaving the United Kingdom of the European Union.

Although RYA is headquartered in Ireland, where the currency is the euro, most of its revenues come from the UK (about 25% of revenue) in sterling (GBP). As for its operating costs, the bulk concerns fuel oil, aircraft and maintenance obligation which are denominated in US dollars (USD). In this way, your financial performance may be conditioned by GBP and USD fluctuations.

RYA is vulnerable to the direct risk of exchange rates between Euro and USD, since most of its operating costs are denominated in US dollars and do not earn significant revenues in this currency.

Although the company hedges the exchange rate between the euro and the US dollar, and in turn, between the euro and the pound sterling, these hedging activities can not eliminate the currency risks to which RYA is exposed.

After the Brexit process began, negotiations began on the future terms of the UK and EU.

Of these negotiations with a negative impact on RYA's business stand out: freedom of movement between UK and EU, employment regulation governing the relationship between UK and EU, UK status with regard to the EU open aviation market and also the status Member State of EU entities operating in the United Kingdom.

By the end of March 2019, if the agreement on "open skies" or bilateral substitution agreements is not reached, there is a high possibility that there will be no flights for an undetermined period between the United Kingdom and the European Union.

As a result, RYA may not only be required to temporarily change its UK-based aircraft (about 24% of its fleet) to European bases, but may also be unable to operate domestic flights in the UK (about 1% of current capacity) under the Air Operator Certificate (AOC). To continue operating these routes you may have to obtain a U.K. UAC or alternatively you may decide to cancel these routes.

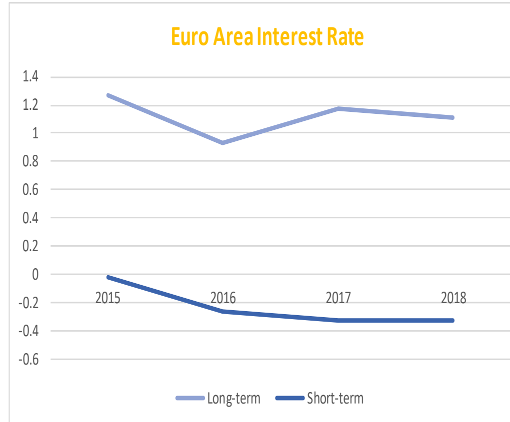
This referendum may present a number of regulatory challenges to RYA insofar as Brexit may lead to divergences in national laws and regulations as the UK will determine the replacement or replication of EU laws.

This referendum may present a number of regulatory challenges to RYA insofar as Brexit may lead to divergences in national laws and regulations as the UK will determine the replacement or replication of EU laws.

RYA operates under EU Regulation 1008/2008 which requires an EU air carrier to be owned and majority controlled by EU citizens so that it can obtain or maintain the operating license.

In this way, RYA may have to take measures to ensure compliance with this regulation.

Figure 14: Eurozone Interest Rate (%)



Source: OECD

Interest Rate

In the euro zone, not only the short-term interest rate but also the long-term interest rate shows a decrease that remains in 2018 (figure 14).

In 2018FY, the purchase of the new fleet of 175 new Boeing 737-800 was financed by loans maintained by a loan guarantee from Ex-Im Bank, Japanese Operating Leases with Call Options (JOLCOS) and commercial debt.

RYA has transformed a share of its floating-rate debt under its fixed-rate debt financing facilities using interest rate swaps or cross currency interest rate swaps.

About 20% of the loans are not covered by such swaps. Thus, floating rates remained linked to the EURIBOR, with much of the exposure of interest rates on these loans being hedged, thus placing a large similar amount in cash at floating interest rates.

At the end of 2018FY, the net result shows that the company exchanged or withdrew debt denominated in euros from the fixed rate with maturities remaining up to 6 years relative to about 80% of the debt financing of aircraft circulating at the end of 2018FY and about 20 % of total debt was floating rate on that day.

The weighted-average interest rate on the cumulative loans under these facilities of €3.963million at the end of 2018FY was 1.41%.

Due to interest rate fluctuations, RYA is protected by entering into such derivative contracts. Otherwise, the plus or minus one percentage point movement in interest rates would impact the fair value of this liability by approximately €2.6 million.

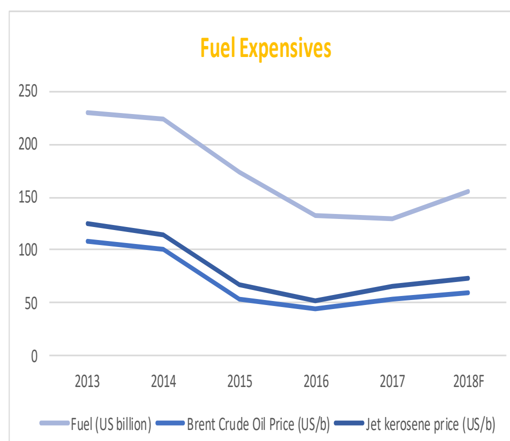
The net interest income and expense in the income statement would increase of €3.1m (net tax) if it happened a plus one-percentage-point movement in interest rates. The other hands, the net interest income and expense in the income statement would increase of €15.4m (net tax) if it happened a minus one-percentage-point movement in interest rates.

Table 5: Yearly Exchange Rates Against Euro

Year	GBP	USD
2014	0.81	1.33
2015	0.73	1.33
2016	0.82	1.11
2017	0.88	1.13
Oct-18	0.88	1.19

Source: USForex

Figure 15: Fuel Expenses



Source: IATA

Fuel and Oil prices

Fuel and Oil are the major RYA's operating expenses for the next 24 months.

Jet fuel, too know jet kerosene, is highly correlated to oil prices, which are quoted in US dollars. In the case of RYA, even without any increase in price, if the value of the US strengthens against the euro, its fuel costs expressed in euros may increase The price of jet fuel has been decreasing since 2013 reaching the lowest value in 2016, 52.1

(US$/barrel). In 2017 the price increase to 65.6 (US/barrel) while it's expected in 2018 will be 73.8 (US/barrel).

The same happens with the price in Crude oil, too increases since 2016, in 2017 was 54.2 although it's expected in 2018 will be 60 (US/barrel), figure 15. So, the price of fuel has been increasing since 2016 and will continue in the future. It is explicated by many factors such as: US shale production remains strong, world demand for oil is growing, and a number of short term political factors in Venezuela, Libya and Iran. Air fares tend following oil prices but with a lag of up to 12 months before big oil prices feed over to higher air fares.

The fall in oil prices has been driven by OPEC-led production cuts and 11 non-OPEC producers cutting production in the first half of 2016, and by a weaker US dollar in the recent past, oil prices remain at levels last seen at the end of 2014 and about 16% above the previous year.

The net impact of OPEC-led production cuts and increased supply from tight US oil producers will be one of the key drivers of oil prices in the coming years. The futures market remains consistent with a moderate decline in oil prices from its current levels to about $ 58/bbl in early 2020.

Given the volatility of the fuel price, RYA uses fuel hedging practices to protect itself.

In order to protect against price fluctuations, RYA returns to hedging making future contracts that covers periods of up to 18 months of anticipated aviation fuel requirements.

As of July 20, 2017, RYA entered the fuel jet (kerosene jet) contract that covered 90% of the estimated requirements for 2018FY at approximately $ 493.

Also in the same date, the jet fuel contract that covered 25% of the estimated requirements for 2019FY came into force at a price of approximately $ 484, not entering into more contracts for dates subsequent to these.

Airline Industry Overview

The major boost for air transport has been economic development world. This vast economic vantage is being generated by increase in between cities such as: enabling the flow of goods, people, capital, technology and ideas. On the other hands, falling air transport cost also has contributed for this economic benefit.

The aviation industry is defined by intense competition with strong prices that require a continuous requirement to increase efficiency. In parallel, this is an industry that continues to grow with more frequent travelers.

The airline business model is divided in two segments: the full-service carriers (FSC) and the low-cost carriers (LCC).

The **Full-Service Carries (FSC)** are airline that has a wide range of reservations and on-board services, including different classes of service, and connecting flights. Your core business is: passengers, cargo and maintenance. Examples are: Air France, Lufthansa, British Airways, Iberian and Austrian Airlines. The FSC have between two and four classes, such as, first, business, premium economy and economic classes and the ticket prices include flight entertainment, checked baggage, meals, beverages and comfort such as blankets and pillows.

The **Low-cost model (LCC)** focuses on commercial and operational practices that reduce airline costs, such as using secondary airports (with lower taxes), not offering freshness on the flight and charging for services such as seat reservation and checked baggage.
The LLCs have only economic class and the ticket prices doesn't include charges for food, baggage or other amenities.

While LCC operates in a point-to-point network (airports are connected by direct routes and rather than going through a central hub), the FSC operates in a hub-to-spoke model (all destinations are linked to a main airport designated hub).

Demand and Supply

The **air travel growth** has been growing by the increase of economy activity, ease in travelling and also by factors of local markets.

It's estimated that international tourists travelling by air should spend more than $US750 billion in 2018, which represents an increase of 15% in little more than 2 years.

Air transport is robust for manufactures trade, mainly trade in components which is a main part of cross border trade today.

The **demand for travel** is characterized by high as fluctuations, heterogeneity and uncertainty about the departure data of the traveler and even the final destination of the trip. On the other hand, the supply of payment units is limited by the capacity of the airplane and has a very perishable nature, i.e., the seats are not sold and cannot be reused after the departure of the flight. Thus, the pricing and stock control process (allocation of aircraft seats) is among the most complex undertaken worldwide.

The provision of air transport services is mainly driven by the demand for air travel, as well as by the demand for the shipment of goods by air.

To analyze this industry must take into account yields, such as, Passenger and Cargo Yields.

Passenger Yields are the weight of revenue passenger in revenue passenger mile, while Cargo Yields are the weight of cargo revenue in freight tone mile.

Cargo Yields has been increasing since 2016 (-8.8%), and in 2018F reached 3.2% (figure 16).

Compared to 2017**, Passenger Yields** increased in 2017 reaching 8.1% but decreased in 2018 reaching 5.1% (figure 16).

An important point of this sector is the Geographical Position.

This increase is driven by dynamic economic conditions in the region. The region with the best performance is North America followed by Europe (table 6).

Compared to the previous year, there was an increase of 8.0% in international traffic on airlines in Europe and Capacity also increased by 6.2%.

To analyze the demand and supply we have to take into account some variables such as: **Revenue Passenger Kilometers (RPK)**, measuring the actual passenger traffic, **Available Seat Kilometers (ASK)**, measuring the available passenger capacity and **Passenger Load Factor (PLF)**, measuring the percentage of ASK used.

There was an increase in 2007 in **Passenger Traffic** (demand), 8%, and **Passenger Capacity** (supply) decrease achieves 6.2%. It is expected that decrease in 2018, passenger traffic will be 6% and passenger capacity 5.5%.

As for the **RPK**, the values presented by RYA are higher than those of the industry and trend to increase (figure 17).

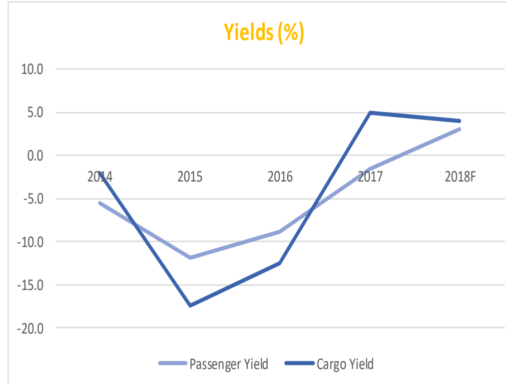
The **Passenger Load Factor**, measures in percentage ATK, presents the major value in Asia-Pacific, 70.7% in 2017 and is expected 70.9% in the present year.

Europe is the second region which have significant load factor, 69.4% in 2017 and 69.7% in 2018 (table 6).

The break-even load factors are highest in Europe, due low yields caused to the competitive open aviation area, and big regulatory costs. Is expected, this year, net profit to rise to 11.5USD billion, representing 9.99USD per passenger and a margin of 5.2% (figure 20 and table 7).

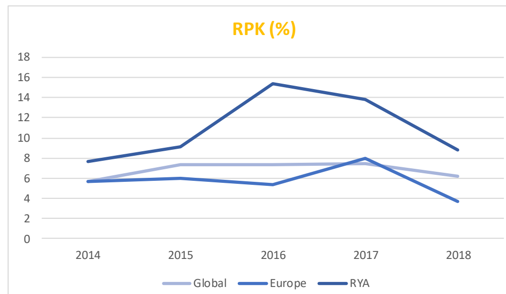
Passenger Load Factor presents by RYA is higher than those of the industry and trend to increase (figure 19).

Figure 16: Yields (%)



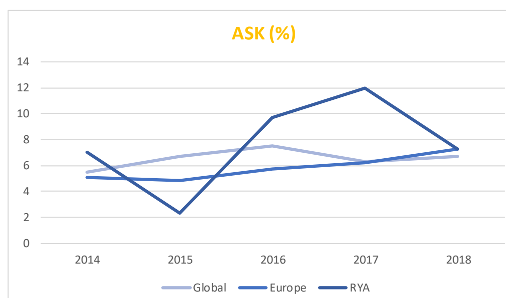
Source: IATA

Figure 17: RPK (%)



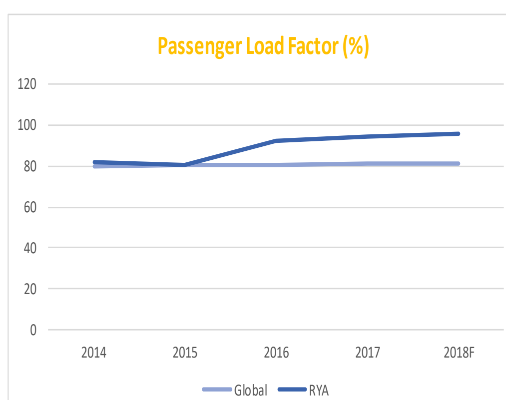
Source: IATA and Company Data

Figure 18: ASK (%)



Source: IATA and Company Data

Figure 19: PLF (%)



Source: IATA and Company Data

Trends: Merger and Acquisition

Laudamotion has a valuable portfolio of slots in some congested airports like Germany, Vienna and Palma de Mallorca.

RYA believes that through separate investment in Airlines, they can build a substantial and profitable US Airlines group over RYA Holdings banner over the next three years, at which time new M&E opportunities are likely to emerge.

RYA will provide management and financial support as well as 6 aircrafts under concessions that include technical staff, maintenance and insurance.

RYA and Laudamotion will work together in the existing management team and expect to achieve profitability in the 3rd year of operations should the business plan for a fleet of at least 30 airbus aircraft be successful.

Due to some operational certifications of Laudamotion one hopes the development of Airbus aircraft within a few years.

Mr Lauda will chair the board of the airline and oversee the implementation of his strategy to build a successful Austrian low fares airline.

The advantages that RYA brings to Laudamotion through its fleet and financial resources are: to enable faster growth and to seek to compete in markets dominated by high airfares of Lufthansa with its subsidiaries, Swiss and Austrian.

For this, Laura requires at least € 100m in start-up costs, and operating losses over the next two years in large measure due to expensive aircraft leases from Lufthansa. Once these leases expire, we expected Lauda to be modestly profitable and self-sustaining as it grows its low fare offerings in Germany and Austria.

This relationship is good news for German and Austrian consumers and also for visitors who are now looking forward to real competition, more choice and more low fares.

Thus, RYA expects to improve its competitiveness and increase the offer of cheap flights in Germany, Austria and Spain.

Costs

Airport and handling costs

The payment of airport charges depends on the individual policies of each Airport, such as: charges for landing fees, passenger loading fees, security and parking fees.

RYA negotiates with the airports to obtain rate reductions through the provision of annual increases in passenger traffic and / or access to new destinations.

Whenever possible, less convenient gates and outdoor boarding stairs for example are chosen as less expensive facilities, in alternative to the expensive jetways.

RYA airport and handling rates per passenger decreased by 8% in 2017FY. In absolute terms, airport and handling charges increased by 4% to € 864.8m in 2017FY, reflecting a 13% increase in traffic aided by more competitive airport business and the weakness of the pound sterling against the euro.

However, there is no guarantee that the performance increases are not as affectionate as the company's operations.

Route charges of RYA per passenger decreased by 1%. The other hand, route charges increased by 7%, from €655.7m in 2017FY to €701.8m 2018FY, mainly because of the 7% increase in sectors flown offset by Eurocontrol price reductions in France, Germany and the U.K. (helped by weaker sterling).

Ryanair's **staff costs**, which includes predominantly salaries, wages and benefits, increased by 7% on a per-passenger basis, but in absolute terms, these costs increased by 17%, from €633.0m in 2017FY to €738.5m in 2018FY.

Table 6: Regions Net Profit

Region	$ Billion
North America	15.6
Europe	9.8
Asia-Pacific	8.3
Middle East	0.3
Latin America	0.7
Africa	-0.1
Total	**34.6**

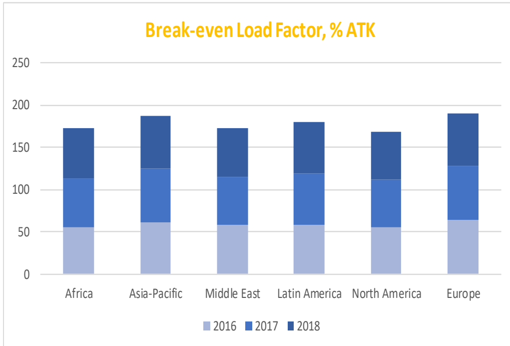
Source: IATA

Table 7: Europe Airline Industry

	2017	2018F
Net post-tax profit, USbillion	9.8	11.5
Per passenger, US	9.03	9.99
% Revenue	4.80%	5.20%
RPK growth, %	8%	6%
ASK growth, %	6.20%	5.50%
Load factor, % ATK	69.40%	69.70%
Break-even load factor, % ATK	63.70%	63.70%

Source: IATA

Figure 20: Break-even Load Factor, %ATK



Source: IATA

The increase in absolute terms was largely attributable to the 10% increase in block hours, pilot salaries increase and the impact of the 2% pay increase in April 2017 offset by weaker sterling against the euro.

Ryanair attempts to control its **labor costs** by unceasingly improving the productivity of its already extremely productive workforce. Staff remuneration emphasizes wage incentives based on productivity. These incentives consist of sales bonuses payments for sales onboard products and payments based on the number of hours or sectors flown by pilots and flight attendants within the limits set by industry standards or regulations that set the maximum work hours.

Strikes

While Ryanair has initiated promising negotiations with the union of pilots, including signed recognition agreements with BALPA and ANPAC, Ryanair is also making good progress with negotiations with its cabin crew, most notable in the UK and Spain.

In April, following a strike organized only by the crew in Portugal, RYA's action led ATC to announce that the Irish company was inspecting the irregularities in the right to strike. given to the company's crew.

In July, a RYA crew strike was called in Portugal, Italy, Belgium and Spain.

This strike was aimed at claiming the application of national rather than Irish laws, in addition to entitlement to sickness benefits.

RYA considers the strike to be completely unjustified as cabin crew earns excellent salaries, which have industry leading schedules and excellent sales commissions, uniform allowance and paid sick leave.

Another strike is expected at the end of September, as officials say that the dialogue with the administration has failed and that it continues to ignore European and national laws and to have a culture of bullying that has been part of the company for decades.

While Ryanair has initiated promising negotiations with the union of pilots, including signed recognition agreements with BALPA and ANPAC, Ryanair is also making good progress with negotiations with its cabin crew, most notable in the UK and Spain.

Peers Group

RYA competes with numerous air transportation companies.

Using total scheduled passenger per year in Europe as an indicator, main competitors are Lufthansa Group (7.87 millions), International Airlines Group (6.69 millions), Air France-KLM (6.85 millions), EasyJet (4.75 millions), Turkish Airlines (4.14 millions), Aeroflot Group (3.40 millions), SAS Group (1.93 millions), Norwegian Air Shuttle ASA (2.11 millions) and Air Berlin Group (1.52 millions).

This companies, all LLCs are their direct competitors, rather than a Hub, which are indirect competitors, such as, International Airlines Group, Lufthansa Group and Turkish Airline.

These companies only four are considered as low-cost carrier: IAG, EasyJet, Norwegian Air Shuttle and Air Berlin Group.

For the final peer selection, we considered two criteria: (a) to be a low-cost company and (b) to operate in Europe.

Thus, the final choice as peers' group are: EasyJet, Air Berlin, Wizz Air and Norwegian Air Shuttle.

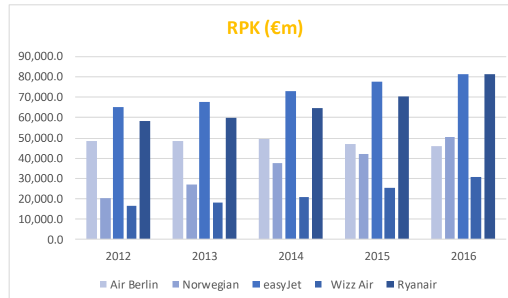
Three indicators were used to compare RYA's peers: RPK, ASK and PLF.

Since some companies have not reported their accounts in 2017 and 2018, the data is compared between 2012 and 2016.

Figure 21: Peers ASK (€m)

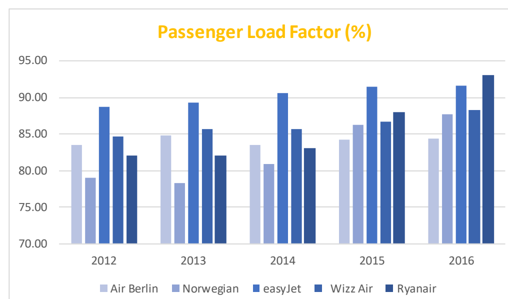
Source: Bloomberg

Figure 22: Peers RPK (€m)



Source: Bloomberg

Figure 23: Peers PLF (%)



Source: Bloomberg

RYA is fast growing, gaining the second highest value of RPK (figure 22).

In 2017, it grew 13.85% compared to 2016, reaching € 92.3m.

In 2018 it also showed growth, although lower than in 2017, with 8.79% reaching € 100.5m.

EasyJet is the company with the highest ASK and RYA has been growing in 2016 almost equaling the value of easyJet ASK (figure 21).

In 2017 RYA had a growth of 11.96% reaching € 97.9m compared to 2016.

In 2018, it had a slightly lower growth of 7.32% reaching € 105m.

Until 2014, RYA presents the second lowest PLF value. In the following year, it presents the second highest value, and in 2016 reaches the highest value of the 5 companies (figure 23).

In 2017, it registered an increase of 1% reaching 94% and in 2018 it increases again 1% registering 95%.

This increase is due to the increase of the RPK and the ASK, consequently of the exponential increase of gains that the company has been obtaining.

Competitive Positioning

RYA opened **4 new bases** in 2018FY, in Burgas, Memmingen, Naples and Poznan.

RYA expects its fleet to increase to 460 aircraft by March 2019 which will allow them to increase the traffic to 139m guests. In April 2018, it operated the 1st flight of Ryanair Sun, the new Polish Charter airline of RYA.

This charter features Air Operator Certificate (AOC), and provides charter flights to/from Poland for the Summer 2018 holiday season with an initial fleet of 5 aircrafts and it looks set to trade profitability in its full year of operation.

RYA expects **Ryanair Sun** to become Poland No.1 charter airline by Summer 2019.

RYA acquired 24.9% of **Laudamotion** in April. Subsequently, on July 12, 2018, the European Commission approved the proposal made by RYA in more than 50.1%, thus allowing the company to work with Niki Lauda and his team to relaunch Laudamotion as the Austrian low-fares company No. 1, serving the markets of Austria and Germany to destinations of sun, mainly Spain. Lauda operates a fleet of 19 aircraft, mainly Airbus, in the summer of 2018, with its Austrian AOC. RYA are looking for opportunities in the summer of 2019 and beyond to increase Lauda's fleet of Airbus aircraft.

Due to the **AGB Customer Experience**, for the 4th consecutive year the load factors improved.

Ryanair.com is one of the largest travel sites in the world, with 1 billion unique visitors per year. Recently, a 5-year Environmental Plan was launched, including the company's commitment to become " free plastic " in 5 years.

The company has a team dedicated to customer service EU261 in Madrid, where they process valid claims within 10 days against an industry average of more than 30 days.

This AGB program continues to guide the operations of the company and its people as they continually strive to improve their guest experience by reducing fares.

The latest initiative of this program is the extension to the successful flight partnership with Air Europa.

This partnership allows RYA's 130m customers to browse and book Air Europa flights from 15 European cities to Madrid and 16 countries in North, Central and South America, including Argentina, Brazil, Cuba Mexico and the USA, all on the Ryanair.com website.

The next phase of this partnership will be launched later this year and will allow RYA customers to connect to Air Europa long-haul flights through Madrid.

RYA continues its discussions with other long-haul airlines, namely Aer Lingus and Norwegian Air, in the potential feeder and connection of flight partners.

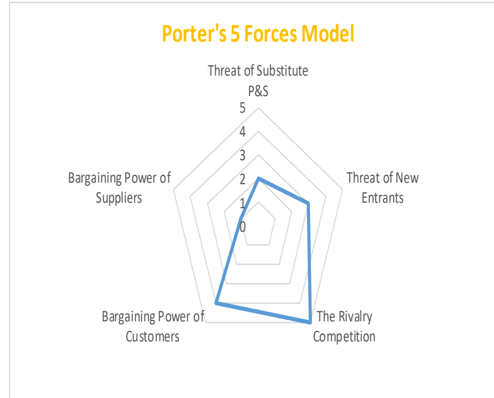
SWOT Analysis presents in table 4, identifies to evaluate a company's competitive position by identifying its strengths, weaknesses, opportunities and threats.

Table 8: SWOT Analysis

Internal Factors	
STRENGHTS (+)	**WEAKNESSES (-)**
Single type fleet;	Secondary airports;
Economies of scale;	Seasonality;
Low cost strategy is a key competitive advantage	Reputation of providing poor services;
Safety;	Strikes;
Costs with airports;	Dependence on Boeing;
Strong online presence;	Brand perception;
Strong presence in most European markets;	Relationship with EU.
Operates point-to-point flights within short distance locations.	
External Factors	
OPORTUNITIES (+)	**THREATS (-)**
Technology advance;	Terrorism and war;
Ancillary product's increase;	EU and local regulations;
Website popularity;	Brexit;
AGB Programme;	Low-fare competition;
Long-haul options to the USA;	Increasing fuel prices;
Irish airport tax abolition.	Increasing airport charges;
	Euro vs dollar exchange rate.

Source: Author

Figure 24: Porter's Five Forces Model



Source: Author

Porter's 5 Forces Model (figure 24) is a model that identifies and analyzes five competitive forces that shape all industries and helps determine the weaknesses and strengths of an industry. Often used to identify an industry structure to determine corporate strategy, Porter's model can be applied to any segment of the economy to pursue profitability and attractiveness.

Bargaining Power of Suppliers | LOW

There is a duplicity in Europe regarding the manufacture of airplanes made up of Boeing and Airbus, which allows them to cover high prices for airplanes.

Airlines do not easily switch providers because airlines are so high capital products that companies enter into long-term contracts allowing them to have more favorable credit terms.

Switching Costs are also high since they involve significant expenses like capital investment and pilot retraining. However, the bargaining power of airline companies in their business relationships with the local airports has increased significantly due to highly intensified level of competition among airports.

The main airline supplier for RYA is Boeing. However, RYA has shown interest Comac aircraft manufactured by Chinese Jet Manufactures, as it has the highest number of seats within the aircraft, which leads to the increased level of efficiency associated with energy consumption.

Another major supplier is jet fuel. Because prices are governed by world trade, RYA cannot negotiate fuel prices with suppliers in a timely manner. Ryanair was dependent on hedging, based on educated guessing for the fuel, to meet its low-fares policy.

Bargaining Power of Costumers | HIGH

Consumers and brands are not loyal to low-fare airlines, which leads consumers to have a high increase in bargaining power, pressuring the organizations to cut costs by strong competitors.

In this way, RYA is very vulnerable to any measure of price reduction by competitors.

Switching costs are low between companies because some consumers choose flights based on distance and cost of time. This is some firm loyalty but not enough for high switching costs.

Threat of Substitute Products and Services | MODERATE

There are several substitute services namely trains, buses, sea transport and car rental companies that can be used for short haul routes.

Generally, RYA flight tickets are a better option as they are cheaper, and airplanes are the fastest means of transport compared to substitute services.

Consumers use substitute services when their choice is costly, or they are not traveling to very long destinations, which increases the risk.

Barriers to New Entry | HIGH

As the airline industry has very high costs there are several entry barriers for new entrants, namely: (i) economies of scales, (ii) cost advantages, (iii) government regulations, (iv) capital requirement, and distribution channels and (vi) retaliation.

Initially when a company decides to enter this market has to ask for a license that can take about a year. Subsequently, it must be constantly regulated in various associations such as the Federal Aviation Administration and Department of Transportation. These actions involve immense costs and time, which at the outset is a factor limiting the entry of new companies.

The biggest barrier to entry is the economies of scale also known as cost advantages associated with expanding the business. In the case of RYA, a company established in the market, as the quantity produced increases over a given period, production costs decrease.

New entrants also incur capital costs associated with entering the market such as: obtaining physical facilities, dealing with stocks, marketing and skilled labor. RYA has a 'Skylights' booking and booking system that strongly promotes its website through advertising in newspapers, radio and television, which leads new entrants to incur large marketing costs and distribution of to compete in the RYA market.

Finally, the difficulties associated with access to distribution channels are also a barrier to entry as new entrants may not be able to create additional slots at local or international airports in their facilities to serve new entrants in the market. EU law regulates the acquisition, transfer and loss of slots. New entrants at an airport have some advantages in obtaining slots, but these are subject to the vested rights of existing operators who are using their slots.

The Rivalry Competition | VERY HIGH

Between companies there is very highly competitive rivalry, as companies compete with each other to increase their market share.

Different airlines compete for identical customers, technology, pricing, customer service and in-flight entertainment.

The safety of this industry is very difficult due to the high investment they make in the purchase of airplanes. Also, the fixed costs are very high. Thus, many players must continue to compete even when they reach low levels of profitability.

A threat to RYA is that companies that compete with it try to copy their strategies to reduce their costs, because RYA's successful cost leadership.

In this industry, high profits are achieved because people travel by the necessary conditions. The most profitable airlines have a competitive advantage because they have more airplanes and a greater variety of flights, which provides greater convenience for the consumer.

5. Investment Summary

Using the **Discounted Cash Flow Method**, the price target of €10.18 and a downside of 17.07% from €12.27 for 26th October 2018, our recommendation is SELL. Using **Multiples approach**, the price target is €12.53 and a upside potential of 2.13%, our recommendation is Reduce.

Our recommendation is based on the following key drivers:

Changes in Fuel Costs

Jet fuel is subject to large price fluctuations due of numerous economics and political factors and events occurring through the world that RYAYY cannot control or correctly predict. In 2018, the oil price decreased when compared to 2017FY. To protect itself from fluctuations, RYAYY entered into forwards contracts that covers periods of time of up to 18 months of anticipated jet fuel necessities. As its hedging program is limited, RYAYY is exposed to risks resulting from fluctuations in fuel prices and movements in EUR / USD. dollar exchange rate, especially considering recent volatility in the relevant currency and commodity markets. In addition, also the decrease in the price of oil leads Ryanair to be exposed to some risk of loss coverage that may have a negative outcome on the company’s financial condition and/or results of operations.

Cyber Security Risks

RYAYY is exposed to cyber security risks, through security breaches, since most of its reserves are made through the website and mobile App. This risk refers to loss or misuse of customer information, litigation and potential liability. A third part service organization is used for the reservation process which is too subject this risk.

The company takes steps to protect your site that are fully compliant with industry-standard data security and " PCI DSS " payment cards. Still, these measures may not be effective, making RYA's site vulnerable to theft, loss, damage, and disruption from various sources and potential events such as cyber-attacks or computer viruses.

The company has no sophisticated sources or techniques to anticipate or quickly prevent evolving types of cyber-attacks.

Currency fluctuations

RYAYY's head office is headquartered in Ireland, with significant operating income, expenses, assets and liabilities denominated in GBP. Additionally, fuel, aircraft, insurance and some maintenance requirements are denominated in USD. Consequently, the company's financial performance can be affected by oscillations in the value of GBP and USD, being specifically vulnerable to direct exchange rate risk between these two currencies. To protect itself, the company engages in foreign currency hedging transactions between euro and USD, and from time to time between euro and GBP. These hedging activities cannot be expected to eliminate currency risk.

Seasonally Grounded Aircraft

Due to the decline in traffic and incomes in the winter period, and in the face of the higher airport charges and / or taxes and, at times, higher fuel prices, the company adopts grounding policy on a certain portion of flights between November and March. Ryanair carries out its scheduled heavy maintenance during these months which also results in the grounding of aircraft.

This policy presents some risks because despite reducing the negative impact on operating profit.

New Routes

When RYAYY starts new routes, Load Factor and fleet tend to decrease than in stabilized routes. However, there is no guarantee that the Low-fares service will be accepted in the new destinations. Periodically carries out special campaigns of promotional tariffs, in particular with connection with the new routes. These promotional fares lead to the increase in Load Factor and the reduction of passenger revenues during that time.

Company's Growth

Since RYAYY became a pioneer in the Low-fare Operations Model in the 1990s, its operations have grown rapidly.

The company expects to continue to grow, increasing new destinations and fleet, aiming to increase booked passenger volumes by approximately 200M passengers by 2024 i.e., an increase of approximately 53% since 2018.

However, if the growth of sales and passenger traffic does not follow the increase in the fleet, problems of overcapacity may arise and the results of operations and financial conditions, including the ability to finance the new fleet and related debt payments, may be adversely affected.

Euro

Euro is the reporting currency of RYAYY. Due to the uncertainly originated by the Eurozone debt crisis, there is widespread speculation about the future of Eurozone.

As a result of the Brexit referendum of 2016, discussed earlier, the GBP has been volatile against the euro and may become more volatile as we approach the Brexit date. The company operates predominantly in Eurozone countries, which leads to its operational and financial position which may result in a reduction in operating performance or in the depreciation of certain assets.

Table 9: WACC Assumptions

Assumptions	Value
Risk Free Rate (Rf)	0.34%
Country Risk Premium (CRP) Ireland	0.98%
Market Risk Premium (MRP)	6.06%
Beta unlevered	0.69
Beta levered	1.38
Cost of debt	4.43%
Terminal growth rate	1.74%
Corporate Marginal tax rate	12.50%

Source: Author

Table 10: Enterprise Value

Enterprise Value - EV	
Terminal Value	€ 12,179.90
PV of Terminal Value	€ 9,915.67
NPV of FCFF	€ 4,131.53
EV	€ 14,047.20
Net Debt	€ 648.68
Equity Value	€ 13,398.52
# Shares Outstanding	1316.7
Equity Value per Share	€ 10.18
Target Price at the end of'19	**€ 10.18**
Price at 26 October	€ 12.27

Source: Author

6. Valuation

The company is evaluated through the **Discounted Cash Flow Method** (absolute method) and **Multiple Approach** (relative valuation model).

Discount Cash Flow (DCF) Method

Based on DCF analysis, our recommendation is Hold, reached a price target of €10.18 for the end of 2019, with results on an downside potential of 17.07% (table 11).

The first step is calculated the **Free Cash Flow to the Firm (FCFF)**, measure that indicates the company's profit after all expenses and reinvestments, using the formula below:

$$FCFF = EBIT\ (1-t) +\ Depreciations\ and\ Amortizations - Changes\ in\ NWC - CAPEX$$

Table 15: Free Cash Flow to the Firm

	2019F	2020F	2021F	2022F	2023F
EBIT	1667.30	1648.29	1594.53	1440.49	1219.76
EBIT(1-Tc)	1458.89	1442.25	1395.21	1260.43	1067.29
Depreciation	750	876.6	1095.70	1369.63	1712.04
Change NWC	199.01	224.25	575.89	576.14	809.01
Capex	-1294.13	-1138.83	-1002.17	-881.91	-776.08
FCFF	**715.75**	**955.73**	**912.85**	**1172.01**	**1194.24**
Year	0	1	2	3	4
Discounted FCFF	715.75	878.83	771.86	911.26	853.83
Cumulative FCFF	715.75	1,594.58	2,366.45	3,277.70	4,131.53
Terminal Value	**€ 9,915.67**	**€ 12,815.98**	**€ 11,452.01**	**€ 14,150.65**	**€ 12,179.90**

Source: Author

When the discount rate is applied to future cash flows, it should reflect to aspects; the first one and probably the most important being the risk of the industry and country where the organization operates and the second one being the time value of the money.

Following the **DCF Approach** and estimating each one the FCFF segments, the discount rate results from the RYA's WACC, which considers and optimal financing structure, opposing to the actual structure.

So, the second step is calculated the **Weighted Average Cost of Capital (WACC)**, which represents the rate of return of Ryanair.

We have considered as period of time 5 years, from May 31, 2018 to May 31, 2023.

$$WACC = \frac{E}{E+D} * Ke + \frac{D}{E+D} * Kd(1-tc)$$

$ke = Cost\ of\ Equity$
$Kd = Cost\ of\ Debt$
$E = Equity$
$D = Net\ Debt$
$Tc = Marginal\ Tax\ Rate$

Cost of Debt (K_d), meaning the effective rate that an organization pays in its debt, represents different values throughout the years following the firm's debt structure changes. **The Marginal Tax Rate (Tc)**, it was considering to be the Irish corporate tax rate 12,5%.

The Cost of Equity (Ke) was calculated based on **Capital Asset Pricing Model (CAPM)**, which is a model that describes the relationship between systematic risk and expected return for assets.

$$K_e = R_f + B_l * MRP + CRP$$

Risk Free Rate (R_f), refers to the 10 years German Treasury bond, which established a reasonable proxy for a risk-free rate for an organization established in any European Member State (table 10).

Table 11: Multiples Resume

Multiples Resume	2019F
EV/EBITDA	10.12
P/E	14.81
P/CF	12.67
Average Price Target	**€ 12.53**

Source: Author

Table 12: EV/EBITDA Estimations

EV/EBITDA	
RYA EBITDA 2019	€ 2,349.54
RYA Net Debt	€ 648.68
Shares Outstanding	1316.7
Average peer EV/EBITDA	€ 7.83
Price Target	**€ 10.12**
Price at 26 October	€ 12.27

Source: Author

Table 13: P/E Estimations

P/E	
RYA EPS	1.30
Average peer P/E	11.39
Price Target	**€ 14.81**
Price at 26 October	€ 12.27

Source: Author

Table 14: P/CF Estimations

P/CF	
RYA Operating Cash Flow	€ 2,712.07
Shares Outstanding	1316.7
Average peer P/CF	6.15
Price Target	**€ 12.67**
Price at 26 October	€ 12.27

Source: Author

The other assumptions taken from Damodaran's Site such as: air transportation industry **Unlevered Beta (B_u)** is 0.69, **Country Risk Premium (CRP)** is 0.98%, the **Market Risk Premium (MRP)** is 6.06%.

Beta leverage (B_l) was calculated on the basis of: $B_l = B_u * (1 + \frac{D}{E} * (1 - tc)$

Thus, using the above assumptions, **Cost of Equity (K_e)** is 9.68%.

Damodaran's calculations as in 2018 for the Air Transport sector give us a K_d of 4,43%. Multiplying that by (1-Tc), we got an After-tax Cost of Debt of 3,88%.

Terminal Value (TV), the estimation of the normalized FCF taking into consideration the Capex, we assumed that the Perpetual Growth Rate (g) should be 1.74%, based on the forecasted GDP growth rate for Ireland. The Perpetuity WACC based on the forecast up to 2023F is 8.62%. More details can be seen in the Appendix 8.

Multiples

The multiples analysis determines the different market values for comparable companies. Thus, the assumption is a certain ratio is applicable and can be interpreted across different companies. This method serves as a complement to the DCF valuation.

In order to select the competing group of companies, I was based on the analysis of the peers group discussed above. Of this group, I only selected the companies Wizz Air, Norwegian and EasyJet because they have data available until 2018, unlike the other competing companies. For the analysis, I used the following ratios: EV/EBITDA, P/E, P/CF and P/BV (table 12).

The **EV/EBITDA** ratio is computed by the formula:

$$EV/EBITDA = \frac{Enterprise\ Value}{EBITDA}$$

For this ratio, we have taken into account the last two years for both RYA and Peers. Thus, we obtained the RYA price target of €10.21, representing a potential 17.55% downside loss from its latest closing price €12.27. Our recommendation is SELL.

The **P/E** ratio is computed by the formula:

$$P/E = \frac{Price}{Enterprise\ Value}$$

For this ratio, we have taken into account the last two years for both RYA and Peers. Thus, we obtained the RYA price target of €14.81, representing a potential 20.67% upside gain from its latest closing price €12.27. Our recommendation is HOLD.

The **P/CF** ratio is computed by the formula:

$$P/CF = \frac{Price}{Cash\ Flow}$$

For this ratio, we have taken into account the last two years for both RYA and Peers. Thus, we obtained the RYA price target of €12.67, representing a potential 3.28% upside gain from its latest closing price €12.27. Our recommendation is REDUCE.

Forecast Analysis

Income Statement

Total operating revenues are composed by scheduled revenues and ancillary revenues.

Scheduled Revenues are expected to increase by about 8% per year as RYAYY expects to reach 200M scheduled traffic by 2024 due to the purchase of 210 new aircraft to be delivered between 2019 and 2024. The acquisition of the new fleet will allow the increase of passenger capacity because the average number of aircraft in the fleet will increase.

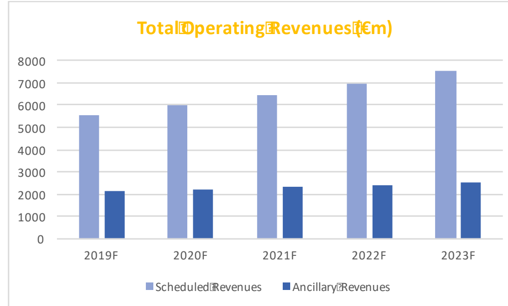
Ancillary Revenues are expected to increase by about 4.5% due to the increase in the scheduled traffic and the due to the greater acceptance by passengers of the reservation of seats, priority boarding and car hire offset by lower travel insurance and hotels.

Fuel and Oil and Staff Costs are the largest costs of RYA. Due to the expansion of new routes and the increase of the new Boeing 737-Max-200 fleet that reduce **fuel costs** by 16% per passenger and although the fuel price tends to rise, Ryanair uses fuel price hedging transactions from time to time to hedge against fluctuations in fuel prices through forward contracts covering periods of up to 18 months of anticipated jet fuel requirements. So, this cost is expected to grow at a rate of 4% in 2019F and 2020F and 5% in the following years. The company expects **staff costs** to increase by € 200m, half of which is higher pay for their front-line people and half is additional headcount for growth. Thus, staff costs are expected to increase by 13% in 2019F and 2020F and expected to increase by 14.5% in the following years. The remaining operating costs were calculated as a percentage of sales.

Financial expenses include interest payable and interest arising on pension liabilities. Due to low interest rates and debt repayments, financial expenses are expected to decrease by 11%. **Finance income** are expected to increase by 2% due to significant lower deposit interest rates.

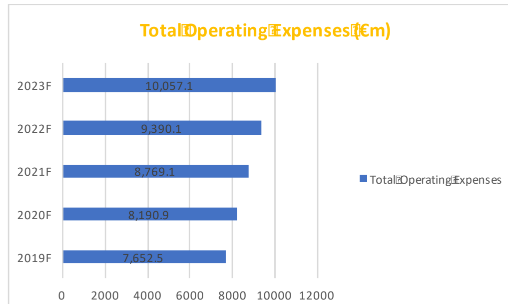
The number of **ordinary shares** were calculated based on history. **Tax on profit** were calculated based on historical with value of 10%.

Figure 25: Total Revenues (€m)



Source: Author

Figure 26: Total Operating Costs (€m)



Source: Author

Balance Sheet

PPE includes aircraft, plant and equipment, fixtures and fittings and motor vehicles. This rubric was estimated according to the formula:

$$PPE_n = PPE_{n-1} \times (1 + Capex\ growth\ rate) - depreciation\ estimate_n$$

This figure tends to increase due to the purchase of the new Boeing 737-Max200 fleet.

The Company is exposed to several risks such as commodity price, foreign exchange and interest rate risks.

To protect itself from exposure to these risks the company uses **derivatives financial instruments (DFI)** such as borrowings, cash deposits and derivatives (mainly jet fuel derivatives, interest rate swaps, cross-currency interest rate swaps and forward foreign exchange contracts. Thus, DFI was estimated by the historical value.

Trade receivables was estimated according to the formula:

$$Trade\ receivables_n = \frac{\frac{(2 * revenues)}{inventory\ turnover}}{inventories_{n-1}}$$

Inventories were estimated based on the 5 years historical average.

The other current assets, Financial Assets: cash > 3 months and Derivate Assets (short-term) were projected based on 5 years historical average.

Retained earnings represent the profits that a company has earned less dividends. This value is adjusted with revenues and expenses.

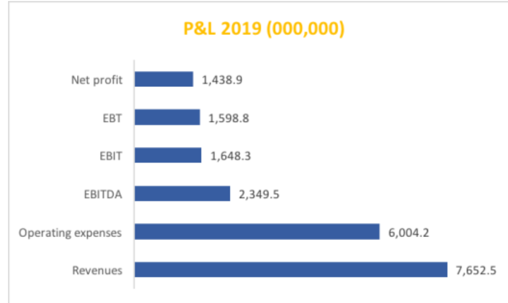
Cash Flow Statement

Depreciations were projected based on the new fleet acquisition, and by 210 Boeing 737-MAX-200 will be delivered. Due to this, they are expected to grow at a rate of 9%.

Capital Expenditures was designed based on the delivery of the new fleet of 210 Boeing 737-MAX-200 by 2024. Thus, it is expected to decrease at a rate of 12.50%.

Proceeds from long term borrowings and repayments of long-term borrowings were projected based on a 5 years historical average weight.

Figure 27: P&L 2019F (€m)



Source: Author

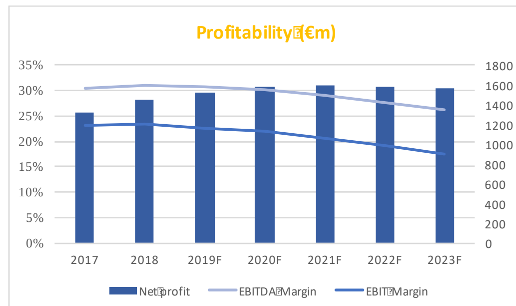
7. Financial Analysis

In 218FY, RYA reported a 10% increase in profit after tax to €1.45bn, as low fares decreased 3% simulated 9% traffic growth to over 130.3 guests despite grounding 25 winter aircraft and an industry leading 95% load factor (upside 1%).

The average fare fell 3% to just €39.40 and the unit costs were cut by 1%.

Via buybacks more than €800m was returned to shareholders.

Figure 28: Profitability (€m)



Source: Author

Table 16: Key Ratios

	2017	2018	2019F	2020F	2021F	2022F
Liquidity Ratios						
Current Ratios	1.56	1.23	1.17	1.17	1.28	1.37
Quick Ratio	1.39	1.09	1.04	1.04	1.16	1.26
Cash Ratio	1.37	1.07	1.02	1.03	1.14	1.24
Profitability Ratios						
Net Profit Margin	19.79%	20.28%	22.98%	20.83%	17.59%	13.89%
ROE	14.88%	16.23%	38.65%	40.99%	38.67%	38.67%
ROA	10.98%	11.73%	13.51%	12.66%	10.92%	8.98%
EPS	0.98	1.12	1.30	1.35	1.21	1.01
Solvency Ratios						
D/E Ratio	1.71	1.77	1.86	2.24	2.54	3.31
Equity Multiplier	1.36	1.38	2.86	3.24	3.54	4.31
Interest Coverage Ratio	9.94	10.35	10.31	10.28	10.27	10.29
Long-term Debt Ratio	0.33	0.29	0.31	0.35	0.38	0.42

Source: Author

Profitability

Net profit margin increased 5.68% due to profit after taxation increased 10% to €1,450.2M, mainly attributable to an 8% increase in revenues. This increase is justified by the 9% increase in traffic and the 8% fuel saving passenger. In 2019F, the ratio is expected to increase due to the same reasons.

Ancillary revenue increased 13% to €2.017M due mobile and digital platforms delivered a 13% in ancillary revenues (more 4% per guest), and now deliver 28% of revenues the company are well on track to achieve us 5 years goal of 30%. Ancillary revenues per passenger increased in 4% to 15.48€.

Scheduled revenues in 2018FY achieved €5,134.M (upside 5%), reflecting the 9% increase in the No. of booked passengers (103.3M), and mainly offset by the 3% reduction in average fare to 39.40€. These revenues represent 72% of RYA's total revenues.

Operating expenses as a percentage of total revenues remained flat at 77% in 2018FY. The fuel and oil are the most expensive operating cost following the airport and handling charges. The total operating expenses increased by 7% to €5,483.7m, mainly because of growth costs associated with the airline. The total operating cost per passenger decreased by 1%, with the decrease reflecting, mainly, and 8% reduction per passenger fuel costs offset by an increase in non-fuel costs of 3%.

The **EBITDA Margin** is expected to decrease in the followings years due the increase in operating revenues are higher than the increase in operating expenses.

The **EBIT Margin** is expected to decrease due the increase in depreciations justified by the assumptions (Forecast Analysis: Cash Flow Statement).

The **ROA** growths due to the increase in net income (explained above) and the increase in total assets mainly supported by the increase in PPE, Financial Assets and Cash and equivalents. In other hands, this last rubric is mainly supported by the increase in net cash inflow from operating activities principally due to higher net income €1.450,2m, depreciation and receipts for future flights offset by a decrease in trade payables. In 2019FY it is expected which ratio increases by the same reasons.

Liquidity

The **Cash Ratio** decreased since the cash and liquid resources declined to €4,128.5M, due to the increase in cash and equivalents, the decrease in capital expenditures of €1,470.6M, decrease in shareholders returns of €829.1M and increase in debt repayments of €458.9M, offset by the profit tax of €1.450,2M. In other hands, cash and equivalents is mainly supported by the increase in net cash from operating activities due principally due to higher net income €1.450,2m, depreciation and receipts for future flights offset by a decrease in trade payables. In 2019F it is expected which cash ratio decreases because the increase in cash and equivalents is higher than the increase in total liabilities.

The cash from investing activities decrease to €719.4M mainly supported by the increase in capital expenditure.

The net cash provided by financing activities increase to €1.222,8m due the decrease in shareholders returns and the increase in repayments of long term borrowings.

Solvency

Equity Multiplier increases 0.02 due to the increase in total assets and the stockholder equity. The stockholder equity increases mainly due to the increase in retained earnings supported by the increase in net income and decrease in shareholders returns.

In general, the solvency ratios show very small variations, which leads us to conclude that the company maintains its solvency policy.

In 1996, RYA was incorporated as a holding company, Ryanair Holdings. Since then, RYA has only occasionally declared special dividends on both its Ordinary Shares and ADRs. The Company repurchased in 2018FY 44.7million shares associated with a total cost of €790m under its share buyback program and 2.0 million underlying shares of ADRs in the total amount of €39m in its €150m "Evergreen" ADR repurchase program.

These repurchases are equivalent to approximately 3.8% of the Company's capital stock at the end of 2017FY. All such repurchased shares were canceled on March 31, 2018.

8. Investment Risks

Safety Risk | Accidents and Terrorism (SR1)

Ryanair has an excellent safety record of 33 years. However, recently safety related matters involving low fares airline companies had not so good impact on their public's trust and acceptance. Any adverse event that involves safety or confidence in low-cost companies, could have a negative impact on public perception and reliance on low fare airlines such as Ryanair and could have a material adverse impact on the financial situation and results of Ryanair's operations.

Economic & Market Risk | GDP Growth (EMR1)

The airline industry is very sensitive in economic conditions.

The Ryanair's Results of Operations would be negatively affected if there was a continuous recessionary environment as it is very sensitive to changes in economic conditions.

The expenses of leisure and business are affected by changes in economic conditions. They could reduce their expenses when occurring the constrained credit markets and the increased operating costs are the result of many unfavorable economic factors such as government austerity measures, the uncertainty relating to the Eurozone and in the U.K following Brexit, high unemployment rates.

RYA's ability to increase tariffs to compensate for fuel increases and other operating costs tends to be affected by unfavorable economic conditions, including the conditions that persist as of this date.

A remain recessionary environment, combined with austerity measures through European governments and increased Brexit-related uncertainty in the U.K., will expected negatively impact Ryanair's operating results. This can lead to limit the company's capacity to increase their passenger volumes, to secure new airports and to create new bases and additional new routes. It could also have a negative result on their financial reports due to a material adverse impact.

Economic & Market Risk | Exchange Rate Risks (EMR2)

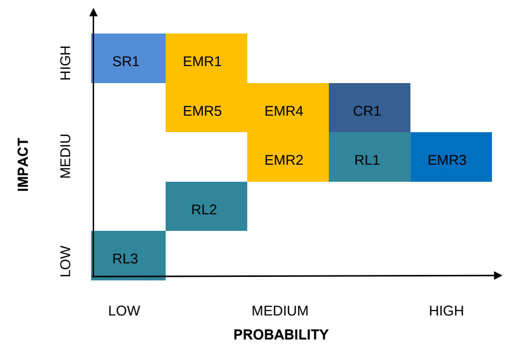
Although RYA is headquartered in Ireland, it has significant operating revenues and expenses as well as sterling-denominated assets and liabilities. On the other hand, a significant part of operating costs such as fuel (the major operating cost), aircraft, insurance and some maintenance obligations, are denominated in US dollars, which leads to Ryanair's direct exposure to exchange rate risk between the euro and the US dollar, while none of its substantial revenues is denominated in this currency.

Foreign exchange risks cannot be totally eliminated by hedging activities, although RYA carries out hedging transactions between the euro and the USD and from time to time between the EUR and the GBP.

Economic & Market Risk | Brexit (EMR3)

RYA is based in Dublin, so the concern by the danger of a hard Brexit in March 2019, remains. The company continues to develop contingency plans for a hard Brexit, which remains a real but underestimated risk, though there is a general belief that a 21-month transition agreement from March 2019 to December 2020 will be agreed (and further extended). Thus, it is likely that RYA' UK shareholders will be treated as non-EU and in line with our Articles of Association, the company plans to restrict the voting rights of all non-EU shareholders in the event of a hard Brexit, so that the company can ensure that Ryanair remains majority owned and controlled by EU shareholders at all times to comply with our licenses.

Figure 29: Risk Matrix



Source: Author

Economic & Market Risk | Fuel Price Risk (EMR4)

Jet fuel is subject to large price fluctuations. These are the result of political and economic factors, as well as events around the world that cannot be predicted nor controlled by the company, such as increases in demand, sudden interruptions in supply and other concerns about global supply, such as market speculation.

RYA's fuel costs are subject to certain currency risks as international jet fuel prices are denominated in US dollars.

RYA's profitability may therefore, be adversely affected by significant price increases, adverse exchange rates or the unavailability of adequate fuel supplies, including any events resulting from international terrorism, protracted hostilities in the Middle East or other oil producing regions or the suspension of production by any significant producer.

In the face of these risks, RYA has historically entered into agreements to provide substantial protection against fluctuations in fuel prices through forwards contracts covering periods of up to 18 months of anticipated jet fuel requirements.

Economic & Market Risk | Interest Rate Risk (EMR5)

The new increase in the RYA fleet consisting of the purchase of 202 new Boeing 737-800 was financed through loans supported by a loan guarantee from Ex-Im Bank, Japanese Operating Leases with Call Options (JOLCOS) and commercial debt.

RYA hedges against interest rate fluctuations by entering into derivative contracts.

Regulatory & Legal Risk | Government Taxes on Travel (RL1)

Some governments charges travel taxes. For example, the Dutch Government charges a travel tax of 11€ in short-haul flights and 45€ in long-haul flights, whereas the Irish government charged an Air travel tax of 10€.

Following the municipal fees increase of 2,50€, by the Italian Government, RYA announced the shutdown of its two Italian bases. However, the municipal fee was later abolished, for what one base remained open.

Thus, it possible to state that an important portion of airline travel (both business and personal) is discretionary, a casa that can be confirmed by RYA, which is a very dependent air travel. This means that any prolonged general reduction in the airline passenger traffic, could have an adverse impact on the company's financial performance. Any important increase in expenses related to security or insurance, could have the same impact. This means that any prolonged general reduction in the airline passenger traffic, could have an adverse impact on the company's financial performance.

Regulatory & Legal Risk | Passenger Compensation (RL2)

Under EU regulations, airlines have to recompense passengers who have been denied boarding or whose flight has been canceled or delayed for more than 3 hours on arrival.

The amount of compensation depends on the duration of the flight and the cause of the cancellation or delay, i.e. whether it is caused by " extraordinary circumstances ".

As the average duration of RYAYY flights is less than 1,500Km, the amount paid by the company is usually € 250 per passenger. The flight is delayed for at least and over two hours the company is demanded to compensate the passenger with meals, drinks, telephone calls and accommodation if the delay extends overnight. If the flight is delayed more that 5 hours the company is also demanded to offer the option of a refund of the unused ticket.

Regulatory & Legal Risk | Emission Trading and Noise Legislation (RL3)

The European Council of Ministers add the air transportation to the EU Emissions Trading Scheme ''ETS''. This plan aims to encourage industries to improve their CO2 efficiency through a cap-and-trade system for CO2 emissions. Thus, airlines are granted initial CO2 allowances based on historical performance and a CO2 efficiency benchmark. Any shortage of allowances has to be purchased in the open market and/or at government auctions. The cost of such allowances increased significantly during 2018FY and has continued to rise in the 2019FY. However, Ryanair has no guarantee that it will be able to obtain sufficient carbon credits or that the cost of these will not have a negative effect on the company's financial performance.

Corporate Risk | Investment grade rating (CR1)

RYA has a BBB + credit rating, that is, stable, according to S & P and Fitch Ratings. Ryanair has to maintain its investment-grade credit ratings as it is a requirement for the debt capital markets in part so that the company can continue to obtain financing. If RYA is unable to maintain its investment grade credit ratings or does not wish to access these markets, the cost of financing will be higher for the company.

Price Target

The calculation of the **sensitivity analysis** gives us the impact of the main risks of investment in the price target. The study of this impact focuses on some WACC variables such as terminal growth, market risk premium and beta.

In the table 14, we can see the changes of the variables that constitute the WACC, since they have a strong impact on the WACC rate and terminal value.

Table 17: Sensitivity Analysis Resume

Sensitivity Analysis Resume			
Variable	Low Estimate	Base Case	High Estimate
WACC	5.96%	8.96%	11.96%
DCF fair price	14.83	10.18	8.00
Recommendation	Hold	Sell	Sell
Terminal Growth Rate	0.84%	1.74%	2.64%
DCF fair price	9.34	10.18	11.25
Recommendation	Sell	Sell	Reduce
Beta	1.08	1.38	1.68
DCF fair price	12.40	10.18	8.73
Recommendation	Reduce	Sell	Sell
Market Risk Premium	5.46%	6.06%	6.66%
DCF fair price	11.06	10.18	9.45
Recommendation	Reduce	Sell	Sell

Source: Author

Appendices

Appendix 1: Statement of Financial Position

BS in Million of EUR except Per Share 12 Months Ending	2017	2018	2019F	2020F	2021F	2022F	2023F
Noncurrent Assets							
Property Plant & Equipment (PPE)	7,213.8	8,123.4	8,397.0	8,528.0	8,455.7	8,100.7	7,360.8
Intangible Assets	46.8	46.8	46.8	46.8	46.8	46.8	46.8
AFS Financial Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Derivate financial instruments	23.0	2.6	112.4	112.4	112.4	112.4	112.4
Total Non-Current Assets	**7,283.6**	**8,172.8**	**8,556.1**	**8,687.2**	**8,614.8**	**8,259.9**	**7,519.9**
Current Assets							
Cash and Equivalents	1,224.0	1,515.0	1,928.9	2,442.4	3,272.1	4,180.6	5,290.4
Trade receivables	54.3	57.6	88.0	63.0	94.9	71.9	106.0
Inventories	3.1	3.7	2.9	3.0	3.2	3.2	3.2
Restricted Cash (Short-Term)	11.8	34.6	9.0	10.8	10.2	11.0	10.5
Other Current Assets	222.1	235.5	173.8	183.7	192.7	201.6	197.5
Derivative Assets (Short-Term)	286.3	212.1	305.7	305.7	305.7	305.7	305.7
Financial Assets: cash > 3 months	2,904.5	2,130.5	1,949.4	1,783.7	1,632.1	1,493.4	1,366.4
Total Current Assets	**4,706.1**	**4,189.0**	**4,457.7**	**4,792.3**	**5,511.0**	**6,267.3**	**7,279.8**
Total Assets	**11,989.7**	**12,361.8**	**13,013.8**	**13,479.5**	**14,125.8**	**14,527.2**	**14,799.8**
Current Liabilities							
Trade payables	294.1	249.6	284.2	323.5	368.3	419.3	477.3
Short-Term Borrowings: Current maturities of debt	455.9	434.6	469.4	506.9	547.5	591.3	638.6
Accrued expenses and other liabilities	2,257.2	2,502.2	2,677.4	2,864.8	3,065.3	3,279.9	3,509.5
Current tax	2.9	36.0	36.0	36.1	36.1	36.1	36.1
Derivate financial instruments	1.7	190.5	330.9	378.0	291.3	238.5	285.9
Total Current Liabilities	**3,011.8**	**3,412.9**	**3,797.8**	**4,109.3**	**4,308.4**	**4,565.0**	**4,947.3**
Non Current Liabilities							
Long Term Debt	3,928.6	3,528.4	4,057.7	4,666.3	5,366.3	6,171.2	6,572.3
Deferred Tax	473.1	395.2	303.8	233.6	179.6	138.0	106.1
Derivative Financial Instruments	2.6	415.5	129.3	146.5	129.3	129.3	129.3
Provisions	138.2	138.1	135.7	133.4	131.1	128.8	126.6
Other Creditors / Other Payables (Long-Term)	12.4	2.8	38.8	28.5	23.0	21.1	22.8
Total Non-Current Liabilities	**4,554.9**	**4,480.0**	**4,665.2**	**5,208.2**	**5,829.1**	**6,588.4**	**6,957.1**
Total Liabilities	**7,566.7**	**7,892.9**	**8,463.1**	**9,317.5**	**10,137.6**	**11,153.4**	**11,904.5**
Stockholder Equity							
Issued Share Capital	7.3	7.0	7.0	7.0	7.0	7.0	7.0
Share premium account	719.4	719.4	725.9	732.5	739.2	745.9	752.7
Other undenominated capital	2.7	3.0	3.0	3.0	3.0	3.0	3.0
Retained earnings	3,456.8	4,077.9	3,948.2	3,526.2	3,425.0	2,665.2	2,251.1
Other Reserves	236.8	-338.4	-133.4	-106.7	-186.0	-47.4	-118.4
Total Stockholder Equity	**4,423.00**	**4,468.90**	**4,550.73**	**4,161.99**	**3,988.18**	**3,373.76**	**2,895.34**
Total Liabilities and Shareholders Equity	**11,989.7**	**12,361.8**	**13,013.8**	**13,479.5**	**14,125.8**	**14,527.2**	**14,799.8**

Source: Company data and team estimates

Appendix 2: Income Statement

IS in Millions of EUR except Pe 12 Months Ending	2017	2018	2019F	2020F	2021F	2022F	2023F
Operating Revenues							
Scheduled Revenues	4,868.2	5,134.0	5,544.72	5,988.30	6,467.36	6,984.75	7,543.53
Ancillary Revenues	1,779.6	2,017.0	2,107.77	2,202.61	2,301.73	2,405.31	2,513.55
Total Operating Revenues	**6,647.8**	**7,151.0**	**7,652.5**	**8,190.9**	**8,769.1**	**9,390.1**	**10,057.1**
Operating Expenses							
Fuel and Oil	-1,913.4	-1,902.8	-1,978.9	-2,058.1	-2,161.0	-2,269.0	-2,382.5
Airport and handling charges	-864.8	-938.6	-1,041.8	-1,156.4	-1,295.2	-1,450.6	-1,624.7
Maintenance, materials and repairs	-141.0	-148.3	-153.5	-158.9	-166.0	-173.5	-181.3
Route Charges	-655.7	-701.8	-779.0	-864.7	-964.1	-1,075.0	-1,198.6
Staff Costs	-633.0	-738.5	-834.5	-943.0	-1,079.7	-1,236.3	-1,415.5
Depreciation	-497.5	-561.0	-701.3	-876.6	-1,095.7	-1,369.6	-1,712.0
Marketing, distribution and other	-322.3	-410.4	-430.9	-452.5	-477.4	-503.6	-531.3
Aircraft rentals	-86.1	-82.3	-84.3	-86.3	-89.5	-92.6	-95.9
Total Operating Expenses	**-5,113.8**	**-5,483.7**	**-6,004.2**	**-6,596.4**	**-7,328.6**	**-8,170.3**	**-9,141.9**
Operating Income	**1,534.0**	**1,667.3**	**1,648.3**	**1,594.5**	**1,440.5**	**1,219.8**	**915.2**
Gain on disposal of AFS financial assets	0	0	0.00	0.00	0.00	0.00	0.00
Finance expense	-67.2	-60.1	-53.5	-47.6	-42.4	-37.7	-33.6
Finance income	-4.2	2.0	2.0	1.9	1.9	1.8	1.8
Foreign exchange	0.7	2.1	2.1	2.0	2.0	2.0	1.9
Total other income/(expenses)	-63.7	-56.0	-49.5	-43.6	-38.5	-33.9	-29.8
Income before tax	1,470.3	1,611.3	1,598.8	1,550.9	1,402.0	1,185.9	885.4
Tax expense on profit on ordinary activities	-154.4	-161.1	-159.9	-155.1	-140.2	-118.6	-88.5
Net income	**1315.9**	**1450.2**	**1,758.7**	**1,706.0**	**1,542.2**	**1,304.5**	**973.9**
Profit for the year							
Basic earnings per ordinary share	10.3	—	1.3	1.3	1.2	1.0	0.8
Diluted earnings per ordinary share	104.64	1.20	1.52	1.52	1.43	1.25	0.97
Number of ordinary shares	1249.7	1193.5	1316.7	1297.1	1279.6	1267.3	1270.8
Number of diluted shares	1257.5	1204	1160.7	1118.9	1078.6	1039.8	1002.4

Appendix 3: Cash Flow Statement

CF In Millions of EUR except Per Share 12 Months Ending	2017	2018	2019F	2020F	2021F	2022F	2023F
Cash from Operating Activities							
Profit ater tax	1,315.9	1,450.2	1758.71	1705.97	1542.21	1304.47	973.95
Depreciation	497.5	561.0	701.25	876.56	1,095.70	1,369.63	1,712.04
Retirements Costs	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Tax expense on profit	154.4	161.1	159.88	155.09	140.20	118.59	88.54
Stock-Based Payment (SBC)	5.7	6.4	4.1	4.5	5.3	5.2	5.1
(Inc) Dec in inventories	0.2	-0.6	-0.8	0.1	0.2	0.0	0.0
(Inc) Dec in Accts Receiv	11.8	-3.3	30.4	-25.0	31.9	-23.0	34.1
(Inc) in other curent assets	-76.0	-14.1	-61.7	9.9	9.0	8.8	-4.1
Inc (Dec) in Accts Payable	63.5	-44.5	34.6	39.3	44.8	51.0	58.0
Increase in accrued expenses	144.7	241.1	175.2	187.4	200.5	214.6	229.6
(Decrease) in other creditors	-20.1	-9.6	36.0	-10.3	-5.5	-1.9	1.7
(Decrease) in provisions	-11.0	-0.1	-2.4	-2.3	-2.3	-2.3	-2.2
Gain on disposal of available for sale financial asset			0.0	0.0	0.0	0.0	0.0
Decrease/(Increse) in finance income	2.4	0.7	-0.04	-0.04	-0.04	-0.04	-0.04
Increase/(decrease) in finance expense	-0.2	3.8	6.6	5.9	5.2	4.7	4.1
Income tax paid	-161.6	-118.9	-129.6	-117.9	-107.3	-97.7	-88.9
Net Cash provided by operating activities	**1,927.20**	**2,233.20**	**2,712.07**	**2,829.18**	**2,959.95**	**2,952.08**	**3,012.07**
Investing Activities							
Capital expenditure (purchase of property, plant and equipment)	-1,449.8	-1,470.6	-1294.13	-1138.83	-1002.17	-881.91	-776.08
Disposal of available for sale asset	0	0	0	0	0	0	0
(Increase)/Decrease in restricted cash	1.2	-22.8	-25.64	-19.71	-0.51	-21.19	-0.41
Decrease in financial assets: cash > 3 months	157.8	774.0	181.09	165.70	151.62	138.73	126.94
Net cash (used in)/provided by investing activities	-1,290.8	-719.4	-1138.7	-992.8	-851.1	-764.4	-649.56
Cash from Investing Activities	**-1290.8**	**-719.4**	**-1138.7**	**-992.8**	**-851.1**	**-764.4**	**-649.6**
Financing Activities							
Shareholders returns	-1,017.9	-829.1	-765.8	-929.2	-885.5	-885.5	-859.0
Net proceeds from shares issued	**0**	**0**	0	0	0	0	0
Dividends Paid	0.0	0.0	0	0	0	0	0
Proceeds from long term borrowings	793.4	65.2	65.2	65.2	65.2	65.2	65.2
Repayments of long term borrowings	-447.1	-458.9	-458.9	-458.9	-458.9	-458.9	-458.9
Net cash (used in)/provided by financing activities	**-671.6**	**-1222.8**	**-1159.5**	**-1322.9**	**-1279.2**	**-1279.2**	**-1252.7**
Increase/(Decrease) in cash and cash equivalents	-35.2	291.0	413.9	513.4	829.7	908.5	1,109.8
Cash and equivalents at beginning of year	1,259.2	1,224.0	1,515.0	1,928.9	2,442.4	3,272.1	4,180.6
Cash and equivalents at end of year	**1,224.0**	**1,515.0**	**1,928.9**	**2,442.4**	**3,272.1**	**4,180.6**	**5,290.4**

Appendix 4: Key Financial Ratios

	2017	2018	2019F	2020F	2021F	2022F
Liquidity Ratios						
Current Ratios	1.56	1.23	1.17	1.17	1.28	1.37
Quick Ratio	1.39	1.09	1.04	1.04	1.16	1.26
Cash Ratio	1.37	1.07	1.02	1.03	1.14	1.24
Profitability Ratios						
Net Profit Margin	19.79%	20.28%	22.98%	20.83%	17.59%	13.89%
ROE	14.88%	16.23%	38.65%	40.99%	38.67%	38.67%
ROA	10.98%	11.73%	13.51%	12.66%	10.92%	8.98%
EPS	0.98	1.12	1.30	1.35	1.21	1.01
Solvency Ratios						
D/E Ratio	1.71	1.77	1.86	2.24	2.54	3.31
Equity Multiplier	1.36	1.38	2.86	3.24	3.54	4.31
Interest Coverage Ratio	9.94	10.35	10.31	10.28	10.27	10.29
Long-term Debt Ratio	0.33	0.29	0.31	0.35	0.38	0.42

Legend:

Current Ratios = total current assets / total current liabilities

Quick Ratios = (cash and equivalents + trade receivables + financial assets) / total current liabilities

Cash Ratio = (cash and equivalents + financial assets) / total current liabilities

Net Profit Margin = net income / total revenues

ROE = net income / total equity

ROA = net income / total assets

EPS = net income / average of number of ordinary shares

D/E Ratio = total liabilities / total equity

Equity Multiplier = total assets / total equity

Interest Coverage Ratio = EBIT / tax expense on profit on ordinary activities

Long term Debt Ratio = long term debt / total assets

Appendix 5: Common-Size Statement of Financial Position

5-1: Income Statement

Income Statement 12 Months Ending	2019F	2020F	2021F	2022F	2023F
Operating Revenues	100.0%	100.0%	100.0%	100.0%	100.0%
Scheduled Revenues	73.2%	73.1%	79.0%	85.3%	92.1%
Ancillary Revenues	26.8%	26.9%	28.1%	29.4%	30.7%
Total Operating Revenues	100.0%	100.0%	107.1%	114.6%	122.8%
Operating Expenses					
Fuel and Oil	-28.8%	-25.1%	-26.4%	-27.7%	-29.1%
Airport and handling charges	-13.0%	-14.1%	-15.8%	-17.7%	-19.8%
Maintenance, materials and repairs	-2.1%	-1.9%	-2.0%	-2.1%	-2.2%
Route Charges	-9.9%	-10.6%	-11.8%	-13.1%	-14.6%
Staff Costs	-9.5%	-11.5%	-13.2%	-15.1%	-17.3%
Depreciation	-7.5%	-10.7%	-13.4%	-16.7%	-20.9%
Marketing, distribution and other	-4.8%	-5.5%	-5.8%	-6.1%	-6.5%
Aircraft rentals	-1.3%	-1.1%	-1.1%	-1.1%	-1.2%
Total Operating Expenses	-76.9%	-80.5%	-89.5%	-99.7%	-111.6%
Operating Income	23.1%	19.5%	17.6%	14.9%	11.2%
Gain on disposal of AFS financial assets	0.0%	0.0%	0.0%	0.0%	0.0%
Finance expense	-1.0%	-0.6%	-0.5%	-0.5%	-0.4%
Finance income	-0.1%	0.0%	0.0%	0.0%	0.0%
Foreign exchange	0.0%	0.0%	0.0%	0.0%	0.0%
Total other income/(expenses)	-1.0%	-0.5%	-0.5%	-0.4%	-0.4%
Income before tax	22.1%	18.9%	17.1%	14.5%	10.8%
Tax expense on profit on ordinary activities	-2.3%	-1.9%	-1.7%	-1.4%	-1.1%
Net Income	19.8%	20.8%	18.8%	15.9%	11.9%
Profit for the year					
Basic earnings per ordinary share	0.2%	0.0%	0.0%	0.0%	0.0%
Diluted earnings per ordinary share	1.6%	0.0%	0.0%	0.0%	0.0%
Number of ordinary shares	18.8%	15.8%	15.6%	15.5%	15.5%
Number of diluted shares	18.9%	13.7%	13.2%	12.7%	12.2%

5-2: Balance Sheet

Balance Sheet 12 Months Ending	2019F	2020F	2021F	2022F	2023F
Noncurrent Assets					
Property Plant & Equipment (PPE)	64.52%	63.27%	62.73%	55.76%	49.74%
Intangible Assets	0.36%	0.35%	0.35%	0.32%	0.32%
AFS Financial Assets	0.00%	0.00%	0.00%	0.00%	0.00%
Derivate financial instruments	0.86%	0.83%	0.83%	0.77%	0.76%
Total Non-Current Assets	65.75%	64.45%	63.91%	56.86%	50.81%
Current Assets					
Cash and Equivalents	14.82%	18.12%	24.27%	28.78%	35.75%
Trade receivables	0.68%	0.47%	0.70%	0.49%	0.72%
Inventories	0.02%	0.02%	0.02%	0.02%	0.02%
Restricted Cash (Short-Term)	0.07%	0.08%	0.08%	0.08%	0.07%
Other Current Assets	1.34%	1.36%	1.43%	1.39%	1.33%
Derivative Assets (Short-Term)	2.35%	2.27%	2.27%	2.10%	2.07%
Financial Assets: cash > 3 months	14.98%	13.23%	12.11%	10.28%	9.23%
Total Current Assets	34.25%	35.55%	40.88%	43.14%	49.19%
Total Assets	100%	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Current Liabilities					
Trade payables	2.2%	2.4%	2.6%	2.9%	3.2%
Short-Term Borrowings: Current maturities of debt	3.6%	3.8%	3.9%	4.1%	4.3%
Accrued expenses and other liabilities	20.6%	21.3%	21.7%	22.6%	23.7%
Current tax	0.3%	0.3%	0.3%	0.2%	0.2%
Derivate financial instruments	2.5%	2.8%	2.1%	1.6%	1.9%
Total Current Liabilities	29.2%	30.5%	30.5%	31.4%	33.4%
Non Current Liabilities					
Long Term Debt	31.2%	34.6%	38.0%	42.5%	44.4%
Deferred Tax	2.3%	1.7%	1.3%	1.0%	0.7%
Derivative Financial Instruments	1.0%	1.1%	0.9%	0.9%	0.9%
Provisions	1.0%	1.0%	0.9%	0.9%	0.9%
Other Creditors / Other Payables (Long-Term)	0.3%	0.2%	0.2%	0.1%	0.2%
Total Non-Current Liabilities	35.8%	38.6%	41.3%	45.4%	47.0%
Total Liabilities	65.0%	69.1%	71.8%	76.8%	80.4%
Stockholder Equity					
Issued Share Capital	0.1%	0.1%	0.0%	0.0%	0.0%
Share premium account	5.6%	5.4%	5.2%	5.1%	5.1%
Other undenominated capital	0.0%	0.0%	0.0%	0.0%	0.0%
Retained earnings	30.3%	26.2%	24.2%	18.3%	15.2%
Other Reserves	-1.0%	-0.8%	-1.3%	-0.3%	-0.8%
Total Stockholder Equity	35.0%	30.9%	28.2%	23.2%	19.6%
Total Liabilities and Shareholders Equity	100.0%	100.0%	100.0%	100.0%	100.0%

Appendix 6: Forecasting Assumptions

6-1: Income Statement

Income Statement	2019F	2020F	2021F	2022F	2023F	Assumption
Scheduled revenues	8%	8%	8%	8%	8%	RYAYY expects to reach 200M scheduled traffic by 2024 due to the purchase of 210 new aircraft to
Ancillary revenues	4.50%	4.50%	4.50%	4.50%	4.50%	Projected based on the increase in the scheduled traffic and the due to the greater acceptance by passengers of the reservation of seats, priority boarding and car hire
Marketing, distribution and other	5.00%	5.00%	5.50%	5.50%	5.50%	Projected based on 5 years historical average of its growth
Staff Costs	13%	13%	15%	15%	15%	increase by € 200m, half of which is higher pay for their front-line people and half is additional headcount for growth.
Depreciation	9%	9%	9%	9%	9%	Projected based on the new fleet acquisition, and by 210 Boeing 737-MAX-200 will be delivered.
Airport and handling charges	11.00%	11.00%	12.00%	12.00%	12.00%	Projected based on 5 years historical average of its growth
Maintenance, materials and repairs	3.50%	3.50%	4.50%	4.50%	4.50%	Projected based on 5 years historical average of its growth
Aircraft rentals	2.40%	2.40%	3.70%	3.50%	3.50%	Projected based on 5 years historical average of its growth
Route charges	11.00%	11.00%	11.50%	11.50%	11.50%	Projected based on 5 years historical average of its growth
Fuel and oil	4%	4%	5%	5%	5%	Due to the expansion of new routes and the increase of the new Boeing 737-Max-200 fleet that reduce fuel costs by 16% per passenger, this cost is expected to grow at a rate of 4% in 2029 and
Gain on disposal of available for sale financial asset	0%	0%	0%	0%	0%	Projected based on 5 years historical average of its growth
Finance income	2%	0%	0%	0%	0%	Projected based on 5 years historical average of its growth
Finance expense	-11%	-11%	-11%	-11%	-11%	Projected based on 5 years historical average of its growth
Tax expense on profit	10.00%	10.00%	10.00%	10.00%	10.00%	The tax effective rate for fiscal year 2018 was 10%.

6-2: Balance Sheet

Balance Sheet	Average Growth Rate	Assumptions
Property Plant & Equipment (PPE)		Based on formula: previous PPE*(1+capex growth rate) - depreciation estimate.
Intangible Assets	0%	Projected based on a 5 years historical average.
AFS Financial Assets	0%	Projected based on a 5 years historical average.
Trade receivables		Based on formula: previous PPE*(1+capex growth rate) - depreciation estimate.
Inventories	7.00%	Projected based on a 5 years historical average.
Other Current Assets	31.56%	Projected based on a 5 years historical average.
Financial Assets: cash > 3 months	10%	Projected based on a 5 years historical average.
Trade payables	13.84%	Projected based on a 5 years historical average.
Short-Term Borrowings	6.50%	Projected based on a 5 years historical average as a percentage of revenues.
Accrued expenses and other liabilities	7.00%	Projected based on a 5 years historical average.
Current tax	0.07%	Projected based on a 5 years historical average as a percentage of revenues.
Long Term Debt	13%	It's expected increase at 13% due new aquisicion Boeings 737-MAX-200 aircraft and entance in new routes.
Deferred Tax	23.00%	Projected based on a 5 years historical average.
Provisions	2%	Projected based on a 5 years historical average.
Issued Share Capital	0%	Projected based on a 5 years historical average.
Share premium account	0.91%	Projected based on a 5 years historical average.
Other undenominated capital	0%	Projected based on a 5 years historical average.
Other Reserves	0.059%	Projected based on a 5 years historical average.

Appendix 7: Discounted Cash Flow Assumptions

Assumptions	Value	Description
Risk Free Rate (Rf)	0.34%	Germany Bound 10Y Yield 24 Agosto bloomberg
Country Risk Premium (CRP) Ireland	0.98%	Damodaran, 5 Jan 2018
Market Risk Premium (MRP)	6.06%	Total Equity Risk Premium Damodaran
Beta unlevered	0.69	Damodaran, 5 Jan 2018
Beta levered	1.38	Calculado com base no beta unlevered Bl=Bu*(1+(1tc)*(D/E))
Cost of debt	4.43%	Cost of Debt Air Transportation Damodaran
Terminal growth rate	1.74%	Forescating
Corporate Marginal tax rate	12.50%	Damodaran, 5 Jan 2018

Appendix 8: Discounted Cash Flow Analysis

8-1: Weighted Average Cost of Capital

Weighted Average Cost of Capital - WACC	2019F	2020F	2021F	2022F	2023F
Cost of Equity					
Rf	0.34%	0.34%	0.34%	0.34%	0.34%
CRP	0.98%	0.98%	0.98%	0.98%	0.98%
MRP	6.06%	6.06%	6.06%	6.06%	6.06%
Beta levered	1.38	1.38	1.38	1.38	1.38
Cost of Equity	9.68%	9.68%	9.68%	9.68%	9.68%
Cost of Debt					
Cost of Debt	4.43%	4.43%	4.43%	4.43%	4.43%
Marginal tax rate	12.50%	12.50%	12.50%	12.50%	12.50%
After tax cost of debt	3.88%	3.88%	3.88%	3.88%	3.88%
Weight of equity (We)	0.88	0.81	0.80	0.76	0.84
Weight of debt (Wd)	0.12	0.19	0.20	0.24	0.16
WACC	8.96%	8.61%	8.51%	8.27%	8.75%

8-2: Free Cash Flow to the Firm

	2019F	2020F	2021F	2022F	2023F
Revenues	7652.49	8190.91	8769.09	9390.06	10057.08
Operating Expenses	-6004.20	-6596.38	-7328.60	-8170.30	-9141.87
EBIT	1667.30	1648.29	1594.53	1440.49	1219.76
EBIT(1-Tc)	1458.89	1442.25	1395.21	1260.43	1067.29
Depreciation	750	876.6	1095.70	1369.63	1712.04
NWC	-1447.1	-1222.8	-647.0	-70.8	738.20
Change NWC	199.01	224.25	575.89	576.14	809.01
Capex	-1294.13	-1138.83	-1002.17	-881.91	-776.08
FCFF	**715.75**	**955.73**	**912.85**	**1172.01**	**1194.24**
Year	0	1	2	3	4
Discounted FCFF	715.75	878.83	771.86	911.26	853.83
Cumulative FCFF	715.75	1,594.58	2,366.45	3,277.70	4,131.53
Terminal Value	**€ 9,915.67**	**€ 12,815.98**	**€ 11,452.01**	**€ 14,150.65**	**€ 12,179.90**

8-3: Price Target

Enterprise Value - EV	
Terminal Value	€ 12,179.90
PV of Terminal Value	€ 9,915.67
NPV of FCFF	€ 4,131.53
EV	€ 14,047.20
Net Debt	€ 648.68
Equity Value	€ 13,398.52
# Shares Outstanding	1316.7
Equity Value per Share	€ 10.18
Target Price at the end of '19	**€ 10.18**
Price at 26 October	€ 12.27

Appendix 9: Relative Valuation

9-1: Multiples Valuation Resume

	EV/EBITDA	P/E	P/CF
Ryanair	10.12	14.81	12.67
easyjet	7.47	11.72	5.64
Norwegian Air	-	-	4.27
Wizz Air	7.47	9.28	6.14
Average	**8.35**	**11.94**	**7.18**

9-2: EV/EBITDA Ratio

EV/EBITDA	
RYA EBITDA 2019	€ 2,349.54
RYA Net Debt	€ 648.68
Shares Outstanding	1316.7
Average peer EV/EBITDA	€ 7.83
Price Target	**€ 10.12**
Price at 26 October	€ 12.27

9-3: P/E Ratio

P/E	
RYA EPS	1.30
Average peer P/E	11.39
Price Target	**€ 14.81**
Price at 26 October	€ 12.27

9-3: P/CF Ratio

P/CF	
RYA Operating Cash Flow	€ 2,712.07
Shares Outstanding	1316.7
Average peer P/CF	6.15
Price Target	**€ 12.67**
Price at 26 October	€ 12.27

Appendix 10: Sensitivity Analysis

	Change in WACC						
€ 10.18	5.96%	6.96%	7.96%	**8.96%**	9.96%	10.96%	11.96%
DCF fair price	15.71	13.18	11.47	10.18	9.31	8.58	8.00
Change to initial target	54%	29%	13%	0%	-9%	-16%	-21%
Recommendation	Hold	Hold	Reduce	Reduce	Reduce	Sell	Sell

Change in Terminal Growth Rate							
€ 10.18	0.84%	1.14%	1.44%	**1.74%**	2.04%	2.34%	2.64%
DCF fair price	9.34	9.60	9.88	10.18	10.50	10.86	11.25
Change to initial target	-8%	-6%	-3%	0%	3%	7%	11%
Recommendation	Reduce	Reduce	Reduce	Reduce	Reduce	Reduce	Reduce

Change in Beta							
€ 10.18	1.08	1.18	1.28	**1.38**	1.48	1.58	1.68
DCF fair price	12.40	11.54	10.80	10.18	9.63	9.15	8.73
Change to initial target	22%	13%	6%	0%	-5%	-10%	-14%
Recommendation	Hold	Reduce	Reduce	Reduce	Reduce	Reduce	Sell

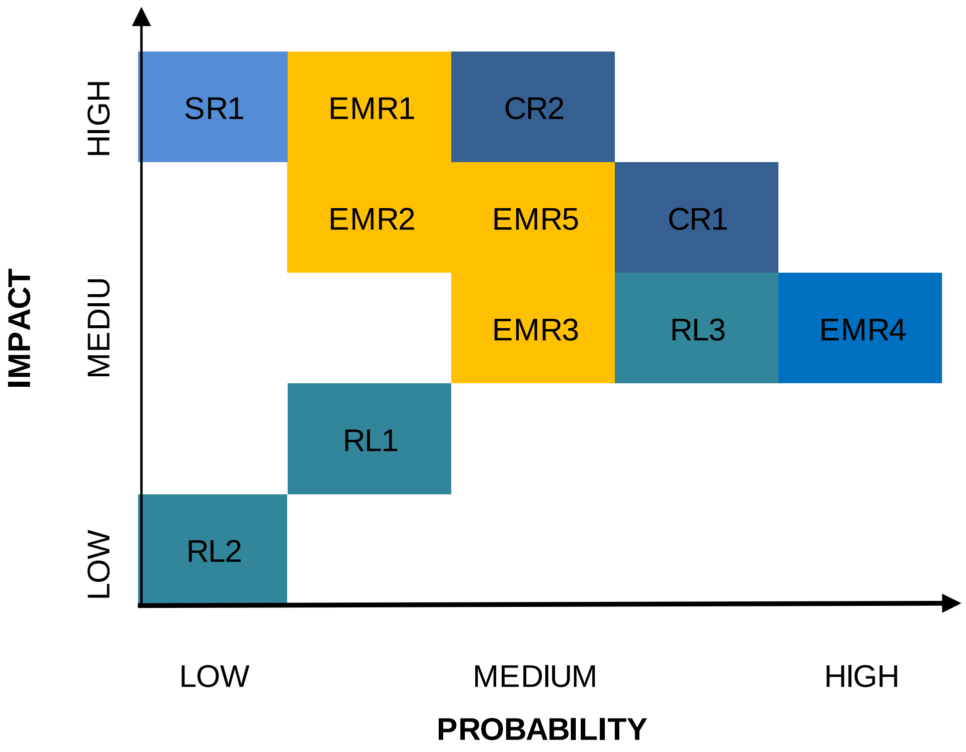
Change in Market Risk Premium							
€ 10.18	5.46%	5.66%	5.86%	**6.06%**	6.26%	6.46%	6.66%
DCF fair price	11.06	10.74	10.45	10.18	9.92	9.68	9.45
Change to initial target	9%	6%	3%	0%	-3%	-5%	-7%
Recommendation	Reduce	Reduce	Reduce	Reduce	Reduce	Reduce	Reduce

Recommendation	**Low Risk**	**Medium Risk**	**High Risk**
Buy	> 15%	> 20%	> 30%
Hold	>5% and < 15%	> 10% and < 20%	> 15% and <30%
Reduce	>-10% and < 5%	>-10% and <10%	>-10% and <15%
Sell	< 10%	< 10%	<-10%

Change in WACC (row) and Terminal Growth (column)							
	0.84%	1.14%	1.44%	**1.74%**	2.04%	2.34%	2.64%
5.96%	13.39	14.07	14.83	15.71	16.73	17.91	19.32
6.96%	11.62	12.08	12.60	13.18	13.83	14.57	15.41
7.96%	10.34	10.69	11.06	11.47	11.92	12.42	12.98
8.96%	9.34	9.60	9.88	**10.18**	10.50	10.86	11.25
9.96%	8.65	8.85	9.07	9.31	9.56	9.84	10.13
10.96%	8.05	8.21	8.39	8.58	8.78	9.00	9.23
11.96%	7.56	7.70	7.84	8.00	8.16	8.33	8.52

Sensitivity Analysis Resume			
Variable	**Low Estimate**	**Base Case**	**High Estimate**
WACC	5.96%	8.96%	11.96%
DCF fair price	14.83	10.18	8.00
Recommendation	Hold	Sell	Sell
Terminal Growth Rate	0.84%	1.74%	2.64%
DCF fair price	9.34	10.18	11.25
Recommendation	Sell	Sell	Reduce
Beta	1.08	1.38	1.68
DCF fair price	12.40	10.18	8.73
Recommendation	Reduce	Sell	Sell
Market Risk Premium	5.46%	6.06%	6.66%
DCF fair price	11.06	10.18	9.45
Recommendation	Reduce	Sell	Sell

Appendix 11: Risk Matrix



Legend:
SR1: Safety Risk – Accidents and Terrorism
EMR1: Economic & Market Risk – GDP Growth
EMR2: Economic & Market Risk – Interest Rate Risk
EMR3: Economic & Market Risk – Exchange Rate Risks
EMR4: Economic & Market Risk - Brexit
EMR5: Economic & Market Risk – Fuel Price Risk
RL1: Regulatory & Legal Risk – Passenger Compensation
RL2: Regulatory & Legal Risk – Emissions Trading and Noise Legislation
RL3: Regulatory & Legal Risk – Government Taxes on Travel
CR1: Corporate Risk – Investment grade Rating

Appendix 12: Du Pont Analysis

Legend	
2013	2018F
2014	2019F
2015	2020F
2016	2021F
2017	2022F

Assets Turnover	
57%	59%
46%	61%
58%	62%
55%	65%
58%	68%

Tax Burden	
88.40%	110.00%
88.22%	110.00%
90.55%	110.00%
89.50%	110.00%
90.00%	110.00%

ROA	
5.93%	13.51%
7.11%	12.66%
13.90%	10.92%
10.98%	8.98%
11.73%	6.58%

Net Profit Margin	
10.38%	22.98%
15.33%	20.83%
23.85%	17.59%
19.79%	13.89%
20.28%	9.68%

Interest Burden	
89.80%	97.00%
94.20%	97.26%
117.93%	97.33%
95.85%	97.22%
96.64%	96.74%

ROE	
7.96%	38.65%
10.74%	40.99%
21.67%	38.67%
14.88%	38.67%
16.23%	33.64%

Leverage Ratio	
1.34	2.86
1.51	3.24
1.56	3.54
1.36	4.31
1.38	5.11

EBIT Margin	
13.08%	21.54%
18.45%	19.47%
22.34%	16.43%
23.08%	12.99%
23.32%	9.10%

Legend:

ROE: Net Income / Total Equity

ROA: Net Income / Total Assets

Leverage Ratio: Total Assets / Total Equity

Assets Turnover: Total Sales / Total Assets

Net Profit Margin: Net Income / Total Sales

Tax Burden: Net Income / EBT

Interest Burden: EBT / EBIT

EBIT Margin: EBT / Total Sales

Appendix 13: Corporate Governance

13-1: Members Resume

Name	Role	Independent	Years on Board	Committees				
				Audit	Remuneration	Nomination	Executive	Safety
D. Bonderman	Chairman	Yes	22	-	-	Member	Member	-
K. McLaughlin	Senior Independent	Yes	17	-	-	-	Chair	-
R. Brennan *	Non-Executive	Yes	-	Member	-	-	-	-
M. Cawley	Non-Executive	Yes	4	-	-	Chair	-	-
E. Daly (**)	Non-Executive	Yes	-	Member	-	-	-	-
S. McCarthy ***	Non-Executive	Yes	1	-	Member	-	Member	-
C. McCreevy	Non-Executive	Yes	8	Member	-	-	-	-
D. McKeon	Non-Executive	Yes	8	Chair	-	-	-	-
H. Millar	Non-Executive	Yes	3	-	Chair	-	-	-
D. Milliken	Non-Executive	Yes	5	Member	-	-	-	-
M. O'Brien	Non-Executive	Yes	2	-	-	-	-	Co. Chair
M. O'Leary	Executive/CEO	No	22	-	-	-	Member	-
J. O'Neill	Non-Executive	Yes	5	-	Member	-	-	-
L. Phelan	Non-Executive	Yes	5	-	-	Member	-	-

* Roisin Brennan was appointed to the Board in May 2018
** Emer Daly was appointed to the Board in December 2017
*** Stan McCarthy was appointed to the Board in May 2017

13-2: Fees and Emoluments

	2018 FY (€M)
Fees	
D. Bonderman	0.1
M. Cawley	0.05
Emer Daly	0.02
M. Horgan	-
J. Leahy	-
C. McCreevy	0.04
D. McKeon	0.05
K. McLaughlin	0.05
H. Millar	0.05
D. Milliken	0.05
M. O'Brien	0.08
J. O'Neill	0.05
J. Osborne	0.02
L. Phelan	0.05
Emoluments	
Share based compensation	0.27
Total	0.93

13-3: Remunerations

Fiscal Year 2018	Base Pay (€'000)	Bonus (€'000)	Pension (€'000)	Share Based (€'000)	Other (€'000)	Total Pay (€'000)
Ryanair	974	1810	244	1474	29	4531
Lufthansa	1380	1551	318	827	117	4193
IAG	1058	-	-	1250	-	2308
EasyJet	894	-	62	-	2	958

Appendix 14: Competitors Resume

Direct Competitors

easyJet Airline Company Limited, it's a low-cost British company, it was incorporated in 1995 in Luton, UK. The company operates with Airbus. They have 279 aircrafts in 31 countries and a global network of 138 airports.

Wizz Air it's a low-cost Hungary company, it was incorporated in 2003 in Budapest. It is the largest low-cost airline in Central and Eastern Europe. This company operates in 500 routes of 27 bases.

Norwegian Air Shuttle ASA it's a low-cost Norway company, it was incorporated in 1993 in Baerum. This company has hubs in Oslo Gardermoen, London Gatwick and Helsinki-Vantaa airports.

Air Berlin it's a German company founded in 1978 in Berlin and operates 144 aircrafts divided in Airbus and Boeing.

Laudamotion it's an Austrian company founded in 1978 in Vienna, Austria. Recently was acquired by Ryanair. Lauda operates with 19 aircrafts mainly Airbus.

Indirect Competitors

Deutsche Lufhtansa AG it's a German company founded in 1954 in Cologne. It operates a total fleet of 620 aircrafts in 100 countries, with 300 different destinations. The group has a low-cost company named Eurowings.

Air France-KLM it's a French company, founded in 2004 in Tremblay-en-France. Operates a total fleet of 545 aircrafts in 116 destinations, with 314 destinations. The group has a low-cost company named Transavia.

International Airline Group (IAG) It's established in London, U.K. and it was founded in 2011, it operates a total fleet of 546 aircrafts in 279 destinations. The company is parent of Aer Lingus, British Arways, Iberia and Vueling, this one being the low-cost company of the group.

Turkish Airline: it's a Turkish company founded in 1933, based in Istanbul, they operate in 302 destinations in Europe, Asia, Africa, and the Americas.

TAP it's a Portuguese airline founded in 1945, based in Lisbon. It operates with Airbus, transports millions of passengers to 80 destinations, including Europe, America and Africa.

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Abbreviations

€bn	Billions of euros
€m	Millions of euros
ASK	Available Seat Meter
CapEx	Capital Expenditure
CDS	Country Default Swap
CFF	Cash Flow from Financing Activities
CFI	Cash Flow from Investing
CFO	Cash Flow from Operations
CRP	Country Risk Premium
D&A	Depreciations & Amortizations
DCF	Discounted Cash Flow
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings before Interest, Taxes, Depreciations and Amortizations
ECB	European Central Bank
EPS	Earnings per share
EV	Enterprise Value
FCFF	Free Cash Flow to the Firm
FSC	Full Service Carriers
FY201X	Fiscal Year of 201X
g	Perpetual growth rate
GBP	Great British Pound
GDP	Gross Domestic Product
IAG	International Airline Group
IATA	International Air Transport Association
IMF	International Monetary Fund
Kd	Cost of debt
Ke	Cost of Equity
LCC's	Low Cost Carriers
MRP	Market Risk premium
NWC	Net Working Capital
OECD	Organization for Economic Cooperation and Development
P/E	Price-to-earnings ratio

P/CF Price-to-Cash Flow ratio

PLF Passenger Load Factor